



# भारत का राजपत्र

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No. २६]

NEW DELHI, SATURDAY, JUNE 30, 1973 (ASADHA ९, १८९५)

इस भाग में चिन्ह पृष्ठ संख्या वी जाती है जिससे कि यह अलग संस्करण के रूप में रखा जा सके।  
(Separate pagings are given to this Part in order that it may be filed as a separate compilation)

### भाग C—खण्ड २

#### PART III—SECTION 2

पेटेंट कार्यालय द्वारा जारी की गई पेटेंटों और रिचार्ड्सों से संबंधित अधिसूचनाएँ और सोटिस

Notifications and Notices issued by the Patent Office relating to Patents and Designs

#### THE PATENT OFFICE

##### Patents and Designs

Calcutta, the 30th June 1973

The dates shown in crescent brackets are the dates claimed under Section 135 of the Act.

##### Application for Patents Filed at the Head Office

11th June 1973

1356/Cal/73. Bayer Aktiengesellschaft. Polyazo dyestuffs.

1357/Cal/73. The Lucas Electrical Company Limited. Lamp assemblies. (13th June 1972).

1358/Cal/73. Recherches Pharmaceutiques Et Scientifiques. Acylated glucosamine derivatives, their preparation and their use in therapeutics.

1359/Cal/73. The Lucas Electrical Company Limited. Spark ignition systems for internal combustion engines. (14th June 1972)

1360/Cal/73. Societe Fives Lille-Cail. Apparatus for the reception of solid particles in a continuously operating centrifugal separator.

1361/Cal/73. Mitsubishi Gas Chemical Co., Ltd. Improved method for producing anhydrous sodium hydrosulphite using sodium formate, formic acid or formic acid ester.

1362/Cal/73. Snam Progetti S.p.A. Process for producing aniline derivatives.

1363/Cal/73. Monsanto Company. Process for preparing 1, 2, 3-trichloropropene.

1364/Cal/73. Monsanto Company. Process for preparing 1, 2, 3-trichloropropene.

1365/Cal/73. SKF Kugellagerfabriken Gesellschaft mit beschränkter Haftung. Bearing for spinning and twisting spindles.

12th June 1973

1366/Cal/73. V. Kumar. An improved padlock.

1367/Cal/73. Recherches Pharmaceutiques Et Scientifiques. Process for preparing cysteine derivatives

1368/Cal/73. Burman & Sons Limited. Steering gear. (13th June 1972).

1369/Cal/73. Aerosol Inventions & Development S. A. Aidsa. Pressure filling of aerosol and like dispensers. (13th June 1972). [Addition to No. 120941].

1370/Cal/73. Maurice Robinson. and Philip Coxon. Shuttlecocks. (16th June 1972).

1371/Cal/73. Embhart (U.K.) Limited. Valve block. (23rd June 1972).

1372/Cal/73. Standard Telephones and Cables Limited. Electrotinning wire. (27th July 1972).

1373/Cal/73. Snam Progetti S.p.A. Process for producing aniline derivatives.

1374/Cal/73. Maschinenfabrik Rieter A. G. Controlling doffing and donning of bobbins and tubes. (16th June 1972).

1375/Cal/73. Volgogradsky Aljuminiev Zavod. Covering of an aluminium cell with burnt anodes.

1376/Cal/73. Hoesch Maschinenfabrik Deutschland AG. Device for the re-railing of rail vehicles.

1377/Cal/73. Ceskoslovenska Akademie Vcd. Manufacturing process of the native microbial protein with a low content of nucleic acids, useful as food or feed.

13th June 1973

1378/Cal/73. Electric Power Storage Limited. Pasting machines for storage battery plate grids. (14th June 1972).

1379/Cal/73. Industrie Pirelli Societa per Azioni. Screening piping for high voltage electric cables.

1380/Cal/73. The General Electric Company Limited. Improvements in or relating to self tuning units. (10th July 1972).

1381/Cal/73. Tarun Kumar Sarkar. Improvements in or relating to Furnace or oven.

1382/Cal/73. Sonoco Products Company. Container end with protective bead and method of manufacture.

1383/Cal/73. Canadian Jesuit Missions. Conversion device enabling a gasoline engine to be fueled with hydrogen. (20th October 1972).

1384/Cal/73. Western Industries (Proprietary) Limited. Improvements in earth leakage protection.

1385/Cal/73. Mitsubishi Kinzoku Kogyo Kabushiki Kaisha. Continues process for refining sulfide ores. (4th May 1973).

1386/Cal/73. International Standard Electric Corporation. Load sharing system.

1387/Cal/73. Tokyo Juki Kogyo Kabushiki Kaisha. Printing apparatus with large number of characters.

1388/Cal/73. Snam Progetti S.p.A. Olefin tetrapolymers and process for the preparation thereof.

1389/Cal/73. Foster Grant Co., Inc. Catalytic hydro-cracking process. [Divisional date 9th March 1971].

1390/Cal/73. E. J. Towns and A. T. Brindisi. Containers and safety closure therefor.

1391/Cal/73. Johnson & Johnson. Improved resin binder compositions, methods of utilising the same and resulting products. [Divisional date 27th July 1971].

14th June 1973

1392/Cal/73. T. P. Singh. An automatic electric motor control system.

1393/Cal/73. UCB, S. A. Process for the preparation of 2H-3-isoquinolones. (16th June 1972).

1394/Cal/73. Peabody Barnes, Inc. Self-priming centrifugal pump.

1395/Cal/73. Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Process for the production of disazomethine pigment. [Divisional date 23rd October 1971].

1396/Cal/73. Hans Andersson and Hakon Eidet. Biological toilet.

1397/Cal/73. Gruppo Lepetit S.p.A. 2-imidazolidinone derivatives.

1398/Cal/73. Palitex Project-Company GMBH. A double-twisting machine having a hand knitter.

15th June 1973

1399/Cal/73. Council of Scientific and Industrial Research. An improved process for the preparation of total alkaloids of belladonna and *datura stramonium*.

1400/Cal/73. Council of Scientific and Industrial Research. A new process for the manufacture of linalool for oil of mentha citrata.

1401/Cal/73. Brooke Bond Liebig Limited. Improvements in or relating to tea. (16th June 1972).

1402/Cal/73. S. A. des anciens Etablissements Paul Wurth. Improvements in and relating to a drive and mounting mechanism for a blast furnace charge distribution apparatus.

1403/Cal/73. Cotton, Incorporated. Non-catalytic durable press process for treating cellulosic material using formaldehyde vapor and post-heating.

1404/Cal/73. Deutsche Gold-Und Silber-Scheideanstalt Vormals Roessler. Process for the preparation of 2-benzoyl-3-amino-pyridines.

1405/Cal/73. Mobil Oil Corporation. Logging technique for assaying for uranium in rock formations.

1406/Cal/73. Wavin B. V. Tube with thickened socket end. (26th September 1972).

1407/Cal/73. L. Stern. An ingot and method of and apparatus for making same.

1408/Cal/73. Tavkozlesi Kutato Intezet. Method and circuitry for simultaneous and adjustable equalization of the group delay and amplitude characteristics in transmission systems.

1409/Cal/73. Union Carbide Corporation. A process for improving the properties of ethylene polymerization catalysts. [Divisional date 24th September 1971].

**Application for Patents Filed at Patent Office (Bombay Branch)**

7th June 1973

199/Bom/73. N. M. Merchant. Button-Yu.

200/Bom/73. Dr. M. P. Vakil. The analysis of the visible part of solar rays (light).

8th June 1973

201/Bom/73. R. H. Karia. Carpet guard.

202/Bom/73. R. L. Paranjpe. An improved operation table top raising and lowering device.

11th June 1973

203/Bom/73. A. R. Bhalla. Atomic horn for the rickshaw.

**Application for Patents Filed at Patent Office (Madras Branch)**

11th June 1973

78/Mas/73. Director, Indian Institute of Science, Bangalore, Mysore State, India. Magnetic field effect transistor.

79/Mas/73. Director, Indian Institute of Science, Bangalore, Mysore State, India. Field effect transistor.

80/Mas/73. Director, Indian Institute of Science, Bangalore, Mysore State, India. A magnet transistor.

81/Mas/73. Director, Indian Institute of Science, Bangalore, Mysore State, India. Light sensitive field effect transistor.

82/Mas/73. Director, Indian Institute of Science, Bangalore, Mysore State, India. A process for fabricating electrically stable semiconductor devices.

## Alteration of Date

135384 (762/Cal/73). Ante-dated to 14th June 1971.  
 135382 (667/Cal/73). Ante-dated to 15th February  
 135383 (1135/Cal/73). Ante-dated to 15th February  
 1971.

## Complete Specifications Accepted

Notice is hereby given that any person interested in opposing the grant of patents on any of the applications concerned, may, at any time within four months of the date of this issue or within such further period not exceeding one month applied for on Form 14 prescribed under the Patents Rules, 1972 before the expiry of the said period of four months, give notice to the Controller of Patents on the prescribed Form 15, of such opposition. The written statement of opposition should be filed along with the said notice or within one month of its date as prescribed in Rule 36 of the Patents Rules, 1972.

A limited number of printed copies of the specifications listed below will be available for sale from the Government of India Book Depot, 8, Kiran Sankar Roy Road, Calcutta, in due course. The price of each specification is Rs. 2 (postage extra if sent out of India). Requisition for the supply of the printed specifications should be accompanied by the number of the specifications as shown in the following list.

Typed or photo copies of the specifications together with photo copies of the drawings, if any, can be supplied by the Patent Office, Calcutta on payment of the prescribed copying charges which may be ascertained on application to that office.

CLASS 32-F-2-C, 60-X-2-d. 101965.

## PROCESS FOR THE MANUFACTURE OF HYDRAZINE COMPOUNDS.

VEB FILMFABRIK WOLFEN, OF WOLFEN, KREIS BITTERFELD, EAST GERMANY.

Application No. 101965 filed October 11, 1965.

Convention date May 27, 1965 (22593/65) U.K.

## 2 Claims—No drawings

A process for the manufacture of a hydrazine compound formula  $\text{HO}_3\text{S}-(\text{CH}_2)_n-\text{NH-NH-R}$ , in which R represents hydrogen,  $-\text{CONH}_2$ ,  $-\text{CSNH}_2$  or  $\text{NH-C=NH}$

and n is within the range from 2 to 4, which comprises reacting a sultone of the formula  $-(\text{CH}_2)_n-\text{SO}_2-$  with a hydrazine hydrate or a hydrazine compound of the formula  $\text{NH}_2-\text{NH-R}$ , in which R and n have the meanings given above.

CLASS 32-F-2(b), 60-X-2(d) 105334.

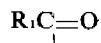
## PROCESS FOR MAKING 2-[2-(SUBSTITUTED) VINYL]-BYCLIC AMIDINES AND SALTS THEREOF.

PFIZER INC., FORMERLY KNOWN AS CHAS. PFIZER & CO., INC., OF 235 EAST 42ND STREET, NEW YORK 17, STATE OF NEW YORK, UNITED STATES OF AMERICA.

Application No. 105334 filed May 18, 1966.

## 9 Claims.

A process for making a 2-[2-(substituted) vinyl]-cyclic amidine having the formula 1 of the accompanying drawings which comprises condensing, at a temperature between 50° and 150°C., (I) a compound of the formula



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wherein  $\text{R}_1$  is a 2-thienyl, 3-methyl-2-thienyl, 3-thienyl, 2-furyl, 3-methyl 2-furyl, 3-furyl, phenyl or lower alkyl containing 1 to 4 carbon atoms,  $\alpha$ -substituted phenyl group with (II) a compound of the formula 2 of the drawings wherein  $\text{R}_4$  is hydrogen or methyl; and Y is an ethylene or trimethylene group, and if desired reacting the free base thus obtained with suitable non-toxic acid to obtain the corresponding salt product.

CLASS 60-X-2(b)(d), 55-E<sub>4</sub>, 32-F-1. 105402.

## PROCESS FOR THE MANUFACTURE OF QUATERNARY 3-PHENYL-3-CYCLOHEXENE-(1')-YL-PROPYL-(1)-N-METHYL-PIPERIDINIUM SALTS.

FARBWERKE HOECHST AKTIENGESELLSCHAFT VORMALS MEISTER LUCIUS & BRUNING, OF 45, BRUNINGSSTRASSE, FRANKFURT/MAIN, FEDERAL REPUBLIC OF GERMANY.

Application No. 105402 filed May 23, 1966.

## 1 Claim.

A process for the manufacture of quaternary 3-phenyl-3-cyclohexene-(1')-yl-propyl(1)-piperidinium salts of the general formula shown in the accompanying drawing, in which X represents chlorine, bromine, iodine or the anion  $\text{CH}_3\text{OSO}_3^-$  wherein 1-piperidino-3-phenyl-3-cyclohexene-(1')-yl-propane is reacted with methyl halides or dimethyl sulfate.

CLASS 60X-2-d, 32 F<sub>4</sub>. 110249.

PROCESS FOR PRODUCING HIGH PURITY  $\beta$ -METHYLMERCAPTOPROPIONALDEHYDE.

SUMITOMO CHEMICAL COMPANY, LTD., OF 15, KITAHAMA-5-CHOME, HIGASHI-KU, OSAKA, JAPAN.

Application No. 110249 filed Apr. 18, 1967.

## 5 Claims—No drawings.

A process for producing high purity  $\beta$ -methyl-mercaptopropionaldehyde substantially free from methylmercaptan which comprises reacting methylmercaptan with acrolein in an acrolein to methylmercaptan ratio of 1.001—1.20 : 1, and rectifying the resulting crude  $\beta$ -methylmercaptopropionaldehyde under reduced pressure at a still temperature of rectification column below 125°C. for a retention time within 60 minutes, while cooling and condensing the distilled vapor by direct contact with a cooled distillate liquid, thereby distilling and separating acrolein-containing low boiling components.

CLASS 32-F-2(1). 111342.

## PROCESS FOR THE PREPARATION OF METHIONINE.

STAMICARBON N.V., OF VAN DER MAESENSTRAAT 2, HEERLEN, THE NETHERLANDS.

Application No. 111342 filed July 1, 1967.

## 3 Claims—No drawings.

A process for the preparation of methionine by converting  $\beta$ -methyl-mercaptopropionaldehyde into  $\delta$ -methyl-mercaptop- $\alpha$ -aminobutyronitrile and hydrolyzing the said nitrile by heating it with a mixture of water and mineral acid into methionine, characterized in that the conversion of  $\beta$ -methylmercaptopropionaldehyde into  $\delta$ -methylmercaptop- $\alpha$ -aminobutyronitrile is carried out in a liquid medium comprising ammonia and water in a weight ratio of ammonia to water greater than 1 : 1, at a temperature of from 0° to 60°C., at superatmospheric pressure and in that the said reaction conditions are maintained for a period of time to effect a conversion of at least 90 moles-% of the  $\beta$ -methylmercaptopropionaldehyde.

CLASS 32-F-2(b), 60-X-2(d). 112418.

1-(3, 4, 5-TRIMETHOXYBENZYL)-6, 7-DIHYDROXY-1, 2, 3, 4-TETRAHYDRO ISORUINOLINE AND PROCESS FOR PREPARING THE SAME.

TANABE SEIYAKU CO., LTD., OF NO. 21, 3-CHOME, DOSHOMACHI, HIGASHI-KU, OSAKA, JAPAN.

Application No. 112418 filed September 19, 1967.

Convention date December 5, 1966 (54413/66) U.K.

1 *Claim.*

A process for preparing 1-(3, 4, 5-trimethoxybenzyl)-6, 7-dihydroxy-1, 2, 3, 4-tetrahydroisoquinoline which comprises admixing 3, 4-dihydroxy-phenethylamine with 3, 4, 5-trimethoxyphenylacetaldehyde under acidic condition.

CLASS 32F-2C & 60X-2d. 118821.

PROCESS OF PREPARING AN AQUEOUS SOLUTION CONTAINING LYSINE MONOHYDROCHLORIDE.

STAMICARBON N. V., OF VAN DER MAESEN-STRAAT 2, HEERLEN, THE NETHERLANDS.

Application No. 118821 filed Dec. 2, 1968.

3 *Claims—No drawings*

A process for preparing an aqueous solution containing lysine monohydrochloride which comprises hydrolyzing  $\alpha$ -amino- $\alpha$ -caprolactam in the presence of more than 2 moles of hydrochloric acid per mole of  $\alpha$ -amino- $\alpha$ -caprolactam, contacting at least a part of the resulting hydrolysis mixture with an anion exchanger thereby binding hydrochloric acid to the anion exchanger and leaving an aqueous solution containing lysine monohydrochloride contacting the anion exchanger containing the bounded hydrochloric acid with a further aqueous solution containing additional  $\alpha$ -amino- $\alpha$ -caprolactam and recycling the further aqueous solution so obtained to the hydrolysis step.

CLASS 32-C, 60-X-2(d), 55-E-4. 123829.

A PROCESS FOR THE PREPARATION OF FIBRINOLYSOKINASES FROM THE MICRO-ORGANISM.

BAYER AKTIENGESELLSCHAFT, FORMERLY KNOWN AS FARBENFABRIKEN BAYER AKTIENGESELLSCHAFT, OF LEVERKUSEN, FEDERAL REPUBLIC OF GERMANY.

Application No. 123829 filed October 31, 1969.

2 *Claims—No drawings.*

Process for the manufacture of fibrinolysokinase characterised in that a strain of the order Actinomycetales is cultivated and that fibrinolysokinase is isolated from the culture according to methods which are in themselves known, where appropriate after removal of proteases.

CLASS 32-F-2(b), 55-E-4. 126635.

PROCESS FOR PREPARING NEW PHENYLIMIDAZOLYL-FATTY ACID DERIVATIVES.

BAYER AKTIENGESELLSCHAFT, FORMERLY KNOWN AS FARBENFABRIKEN BAYER AKTIENGESELLSCHAFT, OF LEVERKUSEN, FEDERAL REPUBLIC OF GERMANY.

Application No. 126635 filed May 12, 1970.

5 *Claims.*

A process for the production of compounds which are phenyl-imidazolyl fatty acid derivatives and salts of such derivatives, the phenyl-imidazolyl-fatty acid derivatives being of the formula I of the accompanying drawings in which  $R^1$ ,  $R^2$ ,  $R^3$  (which may be the same or different) are hydrogen or lower

alkyl; X is a carboxyl group or the grouping of a functional carboxylic acid derivative;  $R^4$  is hydrogen, alkyl, lower-O-alkyl, lower-E-alkyl, or an electro-negative substituent;  $R^5$  is a benzene ring which may be substituted by the radicals mentioned for  $R^4$ , or is an aliphatic radical;  $n$  is 0, 1 or 2; and  $m$  is 0, 1, 2, 3, 4, 5 or 6 in which (a) a halogen derivative of the formula II in which X,  $R^4$ ,  $R^5$ ,  $n$  and  $m$  have the meaning given above and Hal is halogen, is reacted with an optionally alkyl-substituted imidazole in the presence of an acid-binding base or an excess of imidazole, at a temperature of about 20 to about 180°C.

CLASS 32-F-3(d), 40-B. 129962.

A CATALYST AND AN IMPROVED PROCESS FOR THE PRODUCTION OF MALEIC ANHYDRIDE BY THE VAPOUR PHASE OXIDATION OF BENZENE.

COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH, RAFI MARG, NEW DELHI-1, INDIA.

Application No. 129962 filed January 16, 1971.

10 *Claims—No Drawings*

A process for the preparation of a catalyst for the production of maleic anhydride by the catalytic vapour phase oxidation of benzene with air, oxygen or oxygen containing gases at temperatures in the range 380° to 480°C, the said catalyst consisting essentially of  $V_2O_5$ —5 to 10 mols and  $MoO_3$ —5 to 10 mols and modified by one or more oxides of elements of groups IV, V, VI, VIII and the rare earth series of the periodic table especially  $TiO_2$ —2 to 12 mols,  $WO_3$ —0.5 to 4 mols,  $CoO_3$ —1 to 6 mols  $Ni_2O_3$ —1 to 6 mols and  $CeO_2$ —0.1 to 3 mols supported on silica gel equivalent to 100 moles  $SiO_2$ , consisting of particles in the size range —3, +120 B. S. S. which has been especially treated with a strong acid such as hydrochloric acid or nitric acid or an organic acid having dissociation constant greater than  $10^{-5}$  such as formic acid, acetic acid, propionic acid and oxalic acid or a mixture of these acids at around 100°C, washed free of acid and subjected to thermal treatment at temperatures in the range 500—900°C for periods ranging from 1 to 10 hours, and then impregnated with the active ingredients hereinbefore mentioned, as their salts such as vanadyl oxalate, vanadyl oxychloride, ammonium molybdate, nickel nitrate, cobalt nitrate, ammonium tungstate, titanium nitrate and cerium nitrate, from aqueous solution, evaporation of the water and drying of the impregnated gel and then decomposing the salts to effect the deposition of the active oxides on the silica gel support by thermal treatment of the impregnated gel at temperatures in the range 400-700°C.

CLASS 39-L, 141-B. 130083.

RECOVERY OF TITANIUM DIOXIDE FROM ORES THEREOF.

WENDELL E. DUNN, INC., OF 1112 KING STREET, WILMINGTON, DELAWARE, UNITED STATES OF AMERICA.

Application No. 130083 filed January 28, 1971.

24 *Claims—No drawings.*

Process for producing substantially ironfree  $TiO_2$  from an ore containing  $TiO_2$ , iron oxides and minor amounts of other metal oxides, which process comprises: (a) contacting a bed of the ore with chlorine gas under reducing conditions and at an elevated temperature to form a partially chlorinated bed; (b) withdrawing vapours of iron chloride and of other metal chlorides produced in step (a); (c) withdrawing either continuously or batchwise a quantity of the partially chlorinated bed; (d) separating the withdrawn quantity into a first substantially iron-free  $TiO_2$  product fraction and a second iron-containing fraction; and (e) recycling the second fraction, either alone or mixed with fresh ore, to step (a).

CLASS 148-L. 130160.

## PHOTOGRAPHIC MATERIALS.

AGFA VAERT N.V., FORMERLY KNOWN AS GEVAERT-AGFA N.V., OF 27, SETESTRAAT, MORTSEL BELGIUM.

Application No. 130160 filed February 3, 1971.

Convention date February 17, 1970 (7588/70) U.K.

## 6 Claims.

A photographic material comprising a hydrophobic film support, at least one light-sensitive silver halide emulsion layer, and at the side of the support opposite to said light sensitive emulsion layer(s) an antihalation layer comprising a dye or finely divided pigment dispersed in a water-insoluble, alkali-soluble copolymer of 20 to 50% by weight of acrylic or methacrylic acid, 15 to 79% by weight of an alkyl acrylate acrylic wherein the alkyl group comprises 1 to 8 carbon atoms, and 1 to 50% by weight of an alkyl methacrylate wherein the alkyl group comprises 1 to 4 carbon atoms.

CLASS 32-E, 32-D, 40-B. 130270.

## PROCESS FOR THE PREPARATION OF A PARTIALLY HALOGENATED POLYIMINE OF ALUMINIUM

SNAM PROGETTI S.p.A., OF CORSO VENEZIA 16, MILANO, ITALY.

Application No. 130270 February 15, 1971.

## 6 Claims

A process for preparing a polyimine of aluminium, having in its molecule repeated units of the following formula;



wherein R is an alkyl, cycloalkyl or aryl radical, n is an integer having a value from 2 to 50, and X is a halogen or hydrogen atom, with the proviso that in the molecule both halogen and hydrogen atoms are present, which process comprises reacting an alkali metal hydride selected from lithium hydride and sodium hydride with aluminium trihalide, using less alkali metal hydride than the amount required by stoichiometry to form aluminium trihydride, and reacting the resulting product with a primary amine such as herein described to obtain the required polyimine.

CLASS 3-A1, 130282.

## PROCESS FOR PREPARING WATER-SOLUBLE MONOAZO DYESTUFFS

FARBWERKE HOECHST AKTIENGESELLSCHAFT VORMALS MEISTER LUCIUS &amp; BRUNING, OF 45, BRUNINGSTRASSE, FRANKFURT/MAIN, FEDERAL REPUBLIC OF GERMANY.

Application No. 130282 filed February 16, 1971.

## 13 Claims

A process for the preparation of water-soluble monoazo dyestuffs having in form of the free acid the general formula 1 in which A represents a benzene nucleus which may additionally be substituted by alkyl, halo-alkyl and/or alkoxy groups having 1 to 4 carbon atoms, halogen atoms, aralkyl, aryl, aryloxy, alkylamino, arylamino, acylamino and/or nitro groups and/or the 2-benzothiazolyl group which may be substituted by alkyl and/or sulfonyl groups, R represents the hydroxy group an alkoxy group having 1 to 4 carbon atoms, an amino or alkylamino group or the hydrazine radical, C represents a benzene nucleus which may additionally be

substituted by one or two chlorine atoms and/or lower alkyl and/or alkoxy groups having 1 to 4 carbon atoms, m and n each represent 0 or the integer 1 or 2, the sum of m and n being at least 1, and X represents a grouping of the formula 2 or formula 3 in which Y represents a hydroxy group a dialkylamino group or a radical of an inorganic or organic acid which can be split off by alkaline agents, which comprises diazotizing an amine of the general formula 4 in which A, m and n are as defined above, coupling with a pyrazolone derivative of the general formula 5 in which R and X are as defined above and C has the meanings as defined above and optionally converting the dyestuffs of the general formula 1, in which X represents the grouping of the formula -CH<sub>2</sub>-CH<sub>2</sub>-OH, by treating with esterifying agents as herein described into dyestuffs of the formula 1 in which X represents a grouping of the formula 2 in which Y represents a radical of an inorganic or organic acid which can be split off by alkaline agents or optionally converting dyestuffs of formula 1 in which X is a group of formula 3 into dyestuffs of the formula 1 in which X represents a grouping of the formula 2 in which Y represents a thiosulfuric ester group by treating with salts of thiosulfuric acid.

CLASS 32-B, 56-B.

130515.

## CATALYTIC HYDROCRACKING PROCESS

FOSTER GRANT CO., INC., OF 289 NORTH MAIN STREET, LEOMINSTER, COMMONWEALTH OF MASSACHUSETTS, UNITED STATES OF AMERICA.

Application No. 130515 filed March 9, 1971.

Addition No. 119814.

## 13 Claims—No drawings

A process for the hydrocracking of a distillation residue such as herein described and recovery of the products thereof characterized in that the feedstock is substantially sulfur free and comprises ethylbenzene distillation residue containing polyalkyl benzenes, diphenyl and fused ring aromatic compounds and is passed through the bed of hydrocracking catalyst mixed with sufficient to saturate any hydrocarbon residue which results from cracking the feed stock components, at a rate of from about 0.3 to about 3.5 pounds per pound of the catalyst per hour, the temperature of the catalyst bed is maintained within the range of from about 800°F to about 1300°F and the pressure of the feed stock and hydrogen is maintained within the range of from about 150 to 700 pounds per square inch gauge.

CLASS 104-N.

130555.

## WATER VAPOUR PERMEABLE FLEXIBLE POLYMER SHEET MATERIAL HAVING GLOSSY SURFACE AND PROCESS OF PREPARING THE SAME.

PORVAIR LIMITED, OF ESTUARY ROAD, NORTH LYNN, KING'S LYNN, NORFOLK, ENGLAND.

Application No. 130555 filed March 16, 1971.

Convention date March 12, 1970 (11917/70) U.K.

## 35 Claims.

A water vapour permeable flexible polymer sheet material characterized in that it has a dense surface zone affording a glossy surface having an average gloss value (as defined herein) of at least 75 and a gloss loss percentage on the ten minute test (as defined herein) of not more than 25%, whenever prepared by a process as described hereinbefore.

CLASS 32-F<sub>2</sub>b, 32-F<sub>1</sub>, 55-D<sub>2</sub>

130601.

## A PROCESS FOR PREPARING 1-SUBSTITUTED-2-(1, 1-DIFLUORALKYL)-1H-IMADAZO-(4, 5-B) PYRIDINE COMPOUNDS.

ELI LILLY AND COMPANY, 307 EAST MCCARTY STREET, CITY OF INDIANA, UNITED STATES OF AMERICA.

Application No. 130601 filed March 17, 1971.

4 *Claims.*

A process for preparing 1-substituted-2-(1, 1-difluoroalkyl)-1H-imidazo-(4, 5-b) Pyridine compounds of the formula I of the accompanying drawings wherein R<sup>1</sup> represents hydrogen, chlorine, fluorine, perfluoroalkyl of C<sub>1</sub>-C<sub>6</sub>, or radical of the formula IV of the drawings wherein each Z independently represents hydrogen or halogen and n represents 0 or 1. R<sup>2</sup> represents halogen, nitro, -CF<sub>3</sub>, -CF<sub>2</sub>Cl, -CF<sub>2</sub>H, or loweralkylsulfonyl of C<sub>1</sub>-C<sub>4</sub>; and R<sup>3</sup> represents hydrogen or the alkali or alkaline earth metal salt thereof, or the salt thereof with an organic amine having K<sub>b</sub> of the order of 10-5 or greater, comprising: reducing in a manner as herein described 5-substituted-3-nitro 2-(1, 1-difluoroalkylamido) pyridine of the formula IX of the drawings wherein R<sup>1</sup> and R<sup>2</sup> are as defined above, desired 6-substituted-1-hydroxy-2-(1, 1-difluoroalkyl)-1H-imidazo (4, 5-b) pyridine compound; and if desired (2) converting in a manner as herein described the 6-substituted-1-hydroxy-2-(1, 1-difluoroalkyl)-1H-imidazo(4, 5-b) pyridine of step 1 into the alkali, alkaline earth metal or amine salt wherein the amine is an organic amine having a K<sub>b</sub> of the order 10-5 or greater.

CLASS 128-C 130701.

PROSTHETIC DENTURE AND METHOD FOR THE MANUFACTURE THEREOF.

COMFO-DENT CORPORATION, AT 6125 EAST INDIAN SCHOOL ROAD, SCOTTSDALE, ARIZONA 85251, UNITED STATES OF AMERICA.

Application No. 130701 filed March 24, 1971.

13 *Claims*

A method for manufacturing prosthetic dentures adapted to be self-fitted within a person's mouth, comprising the preparation of artificial teeth having bite portion and base portions with notches in the base portions opening in a direction opposite to said base portions assembling a set of said artificial teeth and bonding a U-shaped rigid member in said notches to hold said set of teeth in a generally U-shaped assembly; forming a deformable mesh structure and locating said structure in relation to said U-shaped frame with extending margins of said U-shaped mesh disposed in a direction away from said artificial teeth to form a U-shaped skirt adapted to align generally with outer boundaries of an edentulous ridge of a human mouth; then placing said frame member with said artificial teeth and said mesh structure in a two-piece male and female mold together with uncured elastomeric material; then allowing said elastomeric material then allowing said elastomeric material to cure to a rubbery consistency around said frame, base portions of said artificial teeth and said mesh structure to thereby form a prosthetic denture having a deformable plate and skirt means; then coating said deformable plate and skirt means with additional uncured elastomeric material; then placing said prosthetic denture in an area of an edentulous ridge of a person's mouth; then deforming said plate and skirt means into close conformance disposition with said edentulous ridge by deflecting said mesh structure to a set condition for holding said first mentioned and cured elastomeric material in said close conformance disposition; and then allowing said last mentioned uncured elastomeric material to cure in said person's mouth to attain final fitting of said prosthetic denture.

CLASS 40-B, 394.

130733

PROCESS FOR THE PREPARATION OF TIN OXIDE CATALYST CONTAINING TRACES OF SULPHUR.

DR. DINKAR GOVIND TAKTE, AT AND POST—KHADAMBE (BUDRUK), TALUQA—RAHURI, DIST—AHMEDNAGAR, MAHARASHTRA STATE, INDIA.

Application No. 130733 filed March 26, 1971.

1 *Claim*—No drawings

Process for the preparation of tin oxide catalyst containing traces of sulphur comprising calcining tin sulphide in air at about 500°C.

CLASS 40-B, 39-L.

130734.

PROCESS FOR THE PREPARATION OF TIN OXIDE CATALYST CONTAINING HALOGEN ON ITS SURFACE.

DR. DINKAR GOVIND TAKTE, AT AND POST—KHADAMBE (BUDRUK), TALUQA—RAHURI, DIST—AHMEDNAGAR, MAHARASHTRA STATE, INDIA.

Application No. 130734 filed March 26, 1971.

3 *Claims*—No drawings

Process for the preparation of a catalyst containing halogen on its surface comprising doping tin oxide with an organic or inorganic halogen containing compound under vacuum of the order of 10-5 mm Hg at a temperature from 340°C to 490°C.

CLASS 40-B, 39-L.

130736.

PROCESS FOR THE PREPARATION OF INDIUM OXIDE CATALYST.

DR. DINKAR GOVIND TAKTE, AT AND POST—KHADAMBE (BUDRUK), TALUQA—RAHURI, DIST—AHMEDNAGAR, MAHARASHTRA STATE, INDIA.

Application No. 130736 filed March 26, 1971.

1 *Claim*—No drawings

Process for the preparation of a catalyst comprising of indium oxide containing sulphur in trace amount comprising heating indium sulphide in air at about 600°C.

CLASS 40-B, 39-L.

130737.

PROCESS FOR THE PREPARATION OF GALLIUM OXIDE CATALYST.

DR. DINKAR GOVIND TAKTE, AT AND POST—KHADAMBE (BUDRUK), TALUQA—RAHURI, DIST—AHMEDNAGAR, MAHARASHTRA STATE, INDIA.

Application No. 130737 filed March 26, 1971.

3 *Claims*—No drawings

Process for the preparation of a catalyst containing a halogen at its surface comprising doping gallium oxide with an organic or inorganic volatile halogen containing compound under vacuum of the order of 10-5 mm Hg at from 380°C to 430°C.

CLASS 37-B.

130844.

CENTRIFUGAL BLASTING WHEEL AND BLADE.  
WHEELABRATOR FRYE INC., OF MISHAWAKA INDIANA, U.S.A.

Application No. 130844 filed April 5, 1971.

## 11 Claims

In a blasting wheel formed of a pair of frame plates mounted in spaced parallel relation for rotational movement about a common axis, crosswise aligned grooves extending radially in the inner faces of the plates, and throwing blades extending crosswise between the plates with the lateral edges of the blades slidably received in said grooves for removably retaining the blades in the wheel, the improvement in which the blades are dimensioned to extend crosswise between the plates with the edge portion seated within said grooves and in which the edge portions extend upwardly and downwardly from the opposite faces to provide edge portions of greater cross-section, and an arcuate recess in said edge portion, and a locking member mounted between said plates for rotational movement about an axis parallel to the axis of the wheel and having a lobe which extends alongside the face of the plate including an arcuate portion which extends into said recess when the locking member is rotated to locking position and a flattened portion which is free of said recess when the locking member is rotated to unlocking position, and means for rotating said locking member between locking and unlocking positions.

CLASS 156-B-DH.

130946.

## RECIPROCATING PUMP

JOHANN KRAUS, OF INNSBRUCK, AUSTRIA.

Application No. 130946 filed April 13, 1971.

## 5 Claims

A reciprocating pump with provision for free through flow comprising a cylinder, an outlet communicating with one end of the cylinder, an outlet valve for controlling said outlet, a reciprocable hollow piston and rods assembly provided in said cylinder with the piston rod of said assembly extending through the other end of said cylinder, an inlet in said piston and rod assembly, an inlet valve for controlling said inlet, elongated guide members attached to the two valves respectively, the guide member of said outlet valve being received inside the guide member of the inlet valve and in frictional engagement therewith, said guide member of the inlet valve being provided with resilient means in frictional engagement with the bore of the hollow piston rod, said resilient means being arranged to engage with an abutment surface provided in the piston rod, said valves being caused to be opened and closed sequentially in response to reciprocating movement of the piston and rod assembly and being capable of both being held open simultaneously to allow a free flow of fluid through the pump.

CLASS 32-A-2.

130955.

## PROCESS FOR THE PREPARATION OF BENZOXANTHENE AND BENZOTHIOXANTHENE—DICARBOXYLIC ACID IMIDE DYESTUFFS.

FARBWERKE HOECHST AKTIENGESELLSCHAFT VORMALS MEISTER LUCIUS & BRUNING, OF 45, BRUNINGSTRASSE, FRANKFURT/MAIN, FEDERAL REPUBLIC OF GERMANY.

Application No. 130955 filed April 13, 1971.

## 4 Claims

A process for the manufacture of benzoxanthene and benzothioxanthene dicarboxylic acid imide dyestuffs of the general formula (1) in which X represents an oxygen or sulphur atom, R represents an amino group substituted by optionally substituted alkyl, cycloalkyl, aralkyl, acyl or aryl groups or a heterocyclic radical, a 1, 3, 5-triazinyl radical substituted by an unsubstituted or substituted amino group or by an optionally substituted alkyl, aralkyl or aryl group or by a heterocyclic radical, R<sub>1</sub> and R<sub>2</sub> each represents a hydrogen atom, a halogen atom, a cyano group, a carbalkoxy group, an alkyl, alkoxy or aryl group,

R<sub>3</sub> represents a hydrogen atom or an optionally substituted alkoxy group and R<sub>4</sub> represents a hydrogen atom, or being equal to R<sub>3</sub>, an optionally substituted alkoxy group wherein benzoxanthene or benzothioxanthene dicarboxylic acid anhydrides of the general formula 2 are condensed with a compound of the general formula 2 are condensed with a compound of the general formula 3 wherein X, R, R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub> and R<sub>4</sub> of the cited formulae (2) and (3) being defined before at a temperature within the range of from 100° to 280°C.

CLASS 40-B, 32-F-3(d)

131076.

## IMPROVEMENTS IN OR RELATING TO A CATALYST AND A PROCESS FOR THE PRODUCTION OF ANTHRAQUINONE.

COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH, RAFI MARG, NEW DELHI-1, INDIA.

Application No. 131076 filed April 22, 1971.

## 10 Claims—No drawings

A process, for the preparation of catalyst for the production of anthraquinone by the selective oxidation of anthracene with air, oxygen or oxygen containing gases at temperatures in the range 350°—500°C consisting essentially of V<sub>2</sub>O<sub>5</sub>-1 to 5 mols and modified by one or more oxides of elements of groups VI, VII, and VIII of the Periodic classification of elements especially MoO<sub>3</sub>-1 to 5 mols, Co<sub>2</sub>O<sub>3</sub>-1 to 5 mols, Ni<sub>2</sub>O<sub>3</sub>-1 to 5 mols as their water soluble salts together with an alkali metal salt such as the sulphate, oxalate, carbonate, nitrate and hydroxide of potassium caesium or rubidium-1 to 6 mols, supported on silica gel equivalent to 100 mols SiO<sub>2</sub>, characterised in that the silica gel support in the size range-3, + 120 B.S.S. is treated with a mineral acid such as nitric acid and/or hydrochloric acid, at temperatures in the range 95-100° for periods of 2-15 hours, washed free of adhering acid with water, dried at around 110°C to a moisture content of 5-20%, and then impregnated with a mixed water solution containing the elements herein before mentioned, by slow evaporation on a water bath or sand bath, the impregnated silica gel dried at 105-110°C and then subjected to temperatures in the range 450-550°C in such a manner that the desired temperature was attained in 2-5 hours, maintained at this temperature for 1 to 6 hours and then gradually cooled down to around 30°C in 10-12 hours, in order to decompose the salts and to effect the deposition of the oxides on the surface of the silica gel in an active state, and is further subjected to thermal treatment at a temperature in the range 600-1000°C in such a manner that the desired temperature was attained in 3 to 5 hours, maintained steady at this temperature for 1 to 4 hours and then gradually cooled down to about 30°C. in 10-20 hours.

CLASS 148-F.

131258.

## A DEVELOPER FOR DEVELOPING AN ELECTROSTATIC LATENT IMAGE ON A PHOTOCONDUCTIVE PLATE USED IN ELECTROPHOTOGRAPHIC MACHINE.

COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH, RAFI MARG, NEW DELHI-1, INDIA.

Application No. 131258 filed May 6, 1971.

## 11 Claims—No drawings

A process for the manufacture of a developer for developing an electrostatic latent image of a document object formed on a photoconductive plate used in Electrophotographic machine which consists (i) preparing a toner by thoroughly grinding together to get a homogeneous mixture (a) a pigment or a dye such as carbon black, lamp black, manganese dioxide, cadmium sulphide, lead chromate, chromium oxide, barium sulphate, iron oxide, phthalocyanine blue, (b) a resin such as phenol

formaldehyde, maleic ester, polyvinyl chloride, maleic, polyvinyl acetate, amberol, polystyrene, acrylic ester, chlorinated rubber, vinyl polymer and (ii) thoroughly mixing the toner with a granular carrier such as glass porcelain, granular polystyrene, carbohydrates, common salt, quartz, metal, cork characterised in that the toner comprises of the following ingredients:—

*Ingredients*

(a) A pigment or a dye (such as carbon black, lamp black, manganese dioxide, cadmium sulphide, lead chromate, chromium oxide, barium sulphate, iron oxide phthalocyanine blue)

(b) A resin (such as phenol formaldehyde, maleic ester, polyvinyl chloride, maleic, polyvinyl acetate, amberol, polystyrene, acrylic ester, chlorinated rubber, vinyl polymer).

CLASS 33-A.

PROCESS AND APPARATUS FOR CASTING ARTICLES FROM FERROUS METAL.

HEPWORTH & GRANDAGE LIMITED, OF ST. JOHN'S WORKS, BRADFORD 4, YORKSHIRE, ENGLAND.

Application No. 131262 filed May 6, 1971.

Convention date May 14, 1970 (23508/70) U.K.

Addition to No. 117700.

21 *Claims*

A process for the casting of articles from ferrous metal where in a permanent mould or a stack of permanent moulds, the or each mould including at least one cavity having a permanently open ingate, is held in a jig and said jig carrying said mould or stack of moulds is immersed into a melt of the ferrous metal to be cast such that the or each cavity in the or each mould is filled with molten metal through its ingate as the jig is immersed in said melt and at least some of the heated air or gas within the cavity escapes through the ingate as the ingate passes through the surface of the melt, thereby preventing the entry into the cavity of impurities from the surface of the melt, and wherein the jig and mould or stack of moulds are removed from the melt after the mould cavity or cavities have been filled.

CLASS 32-A-1, 62-C-1.

131551.

PROCESS FOR THE PREPARATION OF WATER-SOLUBLE METAL COMPLEX DIAZO DYESTUFFS.

FARBWERKE HOECHST AKTIENGESELLSCHAFT VORMALS MEISTER LUCIUS & BRUNING, OF 45, BRUNINGSTRASSE, FRANKFURT/MAIN, FEDERAL REPUBLIC OF GERMANY.

Application No. 131551 filed May 31, 1971.

11 *Claims*

A process for the manufacture of water-soluble metal complex diazo dyestuffs which in the metal free form have the general formula (1) of the accompanying drawings in which D represents a radical of a diazo component of the benzene or naphthalene series, having in 2-position a hydroxyl group, n stands for the integer 0 or 1 and m for the integer 1 or 2, X represents a grouping of the formula 2 in which R<sup>1</sup> stands for a hydrogen atom or an alkyl group having 1 to 4 carbon atoms, R' represents a hydrogen atom, an alkyl group of from 1 to 4 carbon atoms, or a phenyl group, and Y and Y' represent fluorine or chlorine atoms, which comprises the coupling of metal complex compound of a monoazo dyestuff which in the metal free form has the general formula 4 in which D and n are defined as

above, with a diazonium compound of an arylamine of the general formula 5 in which X and m are defined as above.

CLASS 48-A(1) & (2).

131583.

PLASTIC INSULATED ELECTRICAL CABLE CONDUCTORS.

STANDARD TELEPHONES AND CABLES LIMITED, OF 190 STRAND, LONDON, W.C. 2, ENGLAND.

Application No. 131583 filed June 3, 1971.

Convention date June 30, 1970 (31500/70) U.K.

4 *Claims*

A method of manufacturing a plastics insulated conductor for electrical cables, including the steps of extruding plastics insulation over a conductor utilizing a plastics extruder including a core-tube holder and continuously passing the conductor through the holder and the extruder, whilst applying a pulsating air supply to the input side of the core-tube holder, in order to produce air bubbles between the circumferential surface of the conductor and the surface of the insulation adjacent the conductor at intervals along the length of the conductor.

CLASS 32F<sub>1</sub>, 32F<sub>3</sub> & 39G.

131697

PROCESS FOR THE PREPARATION OF AROMATIC KETOCARBOXYLIC ACIDS.

SUMITOMO CHEMICAL COMPANY, LIMITED, OF 15, KITAHAMA-5-CHOME, HIGASHI-KU, OSAKA, JAPAN.

Application No. 131697 filed Jun. 14, 1971.

11 *Claims*

A process for the preparation of aromatic ketocarboxylic acids represented by the formula I of the accompanying drawings wherein R<sub>1</sub> and R<sub>2</sub> are individually hydrogen, chlorine, or a straight or branched lower alkyl or a substituted or unsubstituted cycloalkyl, which comprises reacting phthalic anhydride with a benzene derivative represented by the formula II wherein R<sub>1</sub> and R<sub>2</sub> are as defined above, in the presence of anhydrous aluminum chloride wherever prepared by reacting metallic aluminum with anhydrous hydrogen chloride using at least one member of trihalogenated benzenes as a solvent.

CLASS 146-E.

131791.

CRYOMETER

DR. KATTEPUR SUBBARAO RANGAPPA, MINISTRY OF IRRIGATION AND POWER, SHRAM SHAKTI BHAVAN, RAFI MARG, NEW DELHI-1.

Application No. 131791 filed June 18, 1971.

Post dated to July 20, 1971.

3 *Claims*

An indicating device capable of showing the freezing characteristics of a liquid, such as the rate or extent of freezing of a liquid, comprising a container adapted to hold a liquid the characteristics of which are to be indicated, a closure provided at the top of said container, an index tube having a plurality of calibrations marked thereon, and adapted to be held by and be in flow communication with said container, said index tube also adapted to project above a freezing chamber in which said container is disposed such that the freezing characteristics of the liquid in the container is determined by the rate or extent of contraction or expansion of the corresponding liquid in said index tube.

CLASS 169B, & 151 B.

131861

A COMPOSITION FOR REMOVING HARD TENACIOUS CARBON DEPOSITS/SOOT.

CHIEF SCIENTIST, IN THE RESEARCH AND DEVELOPMENT ORGANISATION, MINISTRY OF DEFENCE, GOVERNMENT OF INDIA, NEW DELHI, INDIA.

Application No. 131861 filed Jun. 23, 1971.

*2 Claims—No drawings*

A process for forming composition for detinning and decoppering of high calibre guns which comprises forming a complex by mixing of acid of chromium (chromium trioxide anhydrous CrO<sub>3</sub>) and ammonium salt such as ammonium chloride, ammonium sulphate or ammonium persulphate.

CLASS 145-E-1 & 3, 98-B.

131980.

METHOD OF CONTINUOUS CELLULOSE DIGESTION AND DIGESTER ADAPTED FOR PERFORMING THE METHOD.

KAMYR AKTIEBOLAG, OF VERKSTADSGATAN 10, KARLSTAD, SWEDEN.

Application No. 131980 filed July 3, 1971.

*16 Claims*

Method of continuous cellulose digestion, in which a coherent column of chips or other finely comminuted cellulosic fibre material mixed with digesting liquor, e.g. sulphate or sulphite liquor, during its continuous downward motion through an upright digester is caused to pass first through a zone, wherein the fibre material is impregnated with digesting liquor at a lower temperature compared to a temperature suitable for lignin dissolution, and then through a digesting zone where a temperature is maintained suitable for lignin dissolution, characterized in that at the lower end of the impregnating zone there is maintained over the entire cross-section of the chips column an essentially horizontal flow of comparatively cool liquid by withdrawing liquid at the periphery of the chips column, cooling the same to a temperature equal to or somewhat lower than the temperature of the chips liquor-mixture supplied to the digester top and returning said cooled liquid to the centre of the digester cross-section.

CLASS 107-(F), 69-(I), (E) & (G).

132173.

CONTACT BREAKER FOR USE IN IGNITION DISTRIBUTORS.

JOSPH LUCAS (INDUSTRIES) LIMITED, OF GREAT KING STREET, BIRMINGHAM 19, ENGLAND.

Application No. 132173 filed July 20, 1971.

Convention date July 23, 1970 (35697/70) U.K.

*2 Claims*

A contact breaker assembly for use in an ignition distributor, including a carrier plate which in use is mounted within the casing of an ignition distributor, a fixed contact carried by said carrier plate, and a pivot post fixed with respect to, and upstanding from the carrier plate, said pivot post in use pivotally supporting an insulating heel member carrying a movable contact engageable with said fixed contact and the pivot post being shaped to co-operate with a tool so that the tool can be used to pivot the carrier plate relative to the casing of the distributor about the axis of said pivot post.

132214.

CLASS 85-O.

SAMPLING DEVICE FOR MULTIPLE HEARTH FURNACE.

SHERRITT GORDON MINES LIMITED, 25 KING STREET WEST, TORONTO, ONTARIO, CANADA.

Application No. 132214 filed July 23, 1971.

Convention date August 4, 1970 (089808/70) Canada.

2 —127 GI/73

*6 Claims*

A sampling device for removing a sample of solid particulate material from a vessel within which said solid particulate material is falling, which sampling device comprises an elongated tubular member of substantially constant internal transverse configuration throughout its length and which is adapted to be secured in an opening extending through a wall of said vessel so as to project inwardly and outwardly through said vessel wall and terminating within said vessel in an upwardly open and open-ended channel section for receiving particulate material falling within said vessel, a sample discharge outlet communicating with the interior of said elongated tubular member and adapted to be disposed outwardly of the vessel wall for the discharge of particulate material from within said elongated tubular member, a ram plate having a peripheral configuration corresponding to said internal transverse configuration of said elongated tubular member for free longitudinal movement within said elongated tubular member as well as within said open-ended channel section thereof, and an elongated connecting rod secured at its inner end to said ram plate and having an outer end extending outwardly from within said elongated tubular member for moving said ram plate longitudinally within said elongated tubular member, whereby when said sampling device is secured in an opening in a vessel wall, solid particulate material collected in said upwardly open and open-ended channel section of said elongated tubular member can be returned to the vessel from said tubular member through said open end of said channel section by inward movement of said connecting rod with conjoint inward movement of said connecting rod with conjoint inward movement of said ram plate through said channel section towards said open end thereof and whereby solid particulate material collected in said upwardly open and open-ended channel section can be removed from said vessel by outward movement of said connecting rod with conjoint outward movement of said ram plate outwardly from said open end of said channel section of said elongated tubular member to push such solid particulate material outwardly through said elongated tubular member to said sample discharge outlet thereof.

CLASS 62-C-1.

132217.

PROCESS FOR THE FIXATION OF DYESTUFFS ON TEXTILE MATERIALS OF FLAT STRUCTURE AND SHEETS OR FILMS.

FARBWERKE HOECHST AKTIENGESELLSCHAFT VORMALS MEISTER LUCIUS & BRUNING, OF 45, BRUNINGSTRASSE, FRANKFURT/MAIN, FEDERAL REPUBLIC OF GERMANY.

Application No. 132217 filed July 23, 1971.

*10 Claims*

Process for fixation of dyestuffs such as acid dyestuffs, disperse dyestuffs, reactive dyestuffs, leuco vat dyestuffs ester, metal complex dyestuffs, sulphur dyestuffs and azo dyestuffs on textile material of flat structure, sheets and structures which comprises applying an organic high-boiling compound/s used as fixing media as herein defined which does not damage the substrate consisting of textile materials, of flat structure, sheets and films of synthetic, natural or regenerated material or a mixture of those compounds on the said textile material that have been impregnated or printed with the said dyestuffs and then heating the material so treated by means of electromagnetic waves.

CLASS 103, 140A, & 144-E-2.

132247.

PROCESS FOR PREPARING A FLUID COMPOSITION FOR USE IN PREVENTING RUSTING.

THE CHIEF SCIENTIST IN THE RESEARCH & DEVELOPMENT ORGANISATION, MINISTRY OF DEFENCE, GOVT. OF INDIA, NEW DELHI, INDIA.

Application No. 132247 filed Jul. 26, 1971.

4 *Claims*—No drawings

A process for preparing a fluid composition for use in preventing rusting of mild steel and corrosion/discolouration of bronze parts of particularly of recoil system of buffer and recuperator systems of artillery, tank and naval guns comprising forming a mixture of glycerine, water and alcohol in the ratio of 30-55 : 35-45 : 10-30 and having specific gravity of 1.087-1.11 at 15.0/15.0°C, freezing point below —57°C and kinematic viscosity at 30°C in centistokes 6.0 to 7.0 and thereafter incorporating corrosion inhibitors such as alkali nitrites and inorganic phosphate to said fluid in a manner such that the pH of fluid after incorporation of said corrosion inhibitors is not less than 7.5.

CLASS 102-D.

132279.

## IMPROVEMENTS IN OR RELATING TO SERVO MOTORS.

GIRLING LIMITED, OF KINGS ROAD, TYSELEY, BIRMINGHAM 11, WARWICKSHIRE, ENGLAND.

Application No. 132279 filed July 28, 1971.

Convention date August 6, 1970 (37952/70) U.K.

8 *Claims*

A housing for a servo motor which comprises an end wall having an aperture therein, which aperture has a first face, and a housing member adapted to contain a first seal the housing member having a second face so formed that it cooperates with the first face of the end wall to form a location there between to house a second seal when the housing member is mechanically coupled to the end wall.

CLASS 166-C.

132320

## CONTROLLABLE PITCH PROPELLER

JAMES MILLER PEDERSEN, OF 3089 PUGET DRIVE, VANCOUVER 8, BRITISH COLUMBIA, CANADA.

Application No. 132320 filed August 2, 1971.

18 *Claims*

A controllable pitch propeller mechanism having a generally hollow hub having an axis blades mounted in the hub, the hub being adapted to be secured to a tail-shaft of a vessel so that the hub rotates with the tail-shaft; in combination with the foregoing, (a) a shaft within an coaxial of the hub, and adapted for axial movement relative to the hub; a piston and a cross-head mounted on the shaft moving therewith; the shaft having a bore, (b) means, within the bore, slidably adapted for forward and aft movement within the bore and relative to the hub, the movement being responsive to difference between a force applied to the said means tending to move it forward, and a force applied to the said means tending to move it aft, the means aforesaid remaining in an initial balanced position stationary with respect to the hub and to the bore so long as the forces remain equal, (c) means to equalize the force upon movement of the means referred to in clause (b) above as aforesaid through a particular distance, so that the means referred to in clause (b) above attains a new balanced position stationary relative to the hub, (d) means to apply at least one said force hydraulically, (e) means responsive to the movement as aforesaid concurrently to cause the piston, and with it the shaft and the cross-head, to move axially relative to the hub through the particular distance, so that in the new balanced position, the means referred to in clause (b) above has the same position relative to the shaft bore as in the initial position, (f) means responsive to the movement of the cross-head through the particular distance to change pitch of a blade.

## CLASS 63-A-2 I.

132325.

## THREE PHASE INDUCTION MOTOR UNIT COMPENSATED FOR REDUCED SUPPLY VOLTAGE.

INDULAI. PAREKH, C/o. ARISTOTLE'S, 1, MAY QUEENS, 33, T.P.S. ROAD, BANDRA, BOMBAY-50, MAHARASHTRA STATE.

Application No. 132325 filed on August 2, 1971.

2 *Claims*

A three phase induction motor unit compensated for reduced supply voltage consisting of a three phase induction motor, an electromagnetic contactor having six NC and seven NO contact pairs and being referred to as the transfer contactor, three electromagnetic AC relays each operating in response to one of the three supply voltage parameters and having one NC contact pair and the relays being referred to respectively as the voltmonitor retrophaser and the zerophaser, and any required arrangement providing a temperature operated NC contact pair referred to as the thermonitor; the flux density in the motor core being at its maximum permissible level for a voltage drop of half the phase-to-phase nominal supply voltage across each of the six phase windings of the motor the six phase windings being formed by dividing each phase winding into two equivalent hubs the three tops (or bottoms) of alternate windings in six phase sequence being treated as the motor terminals and the interconnections of the windings being controlled through the transfer contactor; the transfer contactor coil being connected to any two of the three motor terminals through the NC contact pair of the voltmonitor; the voltmonitor having a gravitationally balanced and mechanically or electromagnetically retained armature facing two poles of its core, the said two poles being bridged by three symmetrical ferromagnetic flux paths without air gaps, the said paths passing through three symmetric coils connected symmetrically to the motor terminals the said armature moving under the action of the third harmonic flux linking via it when the supply voltage exceeds about 87% of its nominal value and the said operation opening the NC contact pair in series with the transfer contactor coil thereby to release the transfer contactor to its normal position; the said transfer contactor normally connecting the six phase motor winding in series delta through the six NC contact pairs and connecting them in two equivalent stars in parallel through the seven NO contact pairs on operation due to the supply voltage falling below 87% of its nominal value and the said transfer of connections resulting in the restoration of the maximum permissible flux density in the motor core just below the said supply voltage level below the nominal avoiding wastage of motor raw materials; the sensor element of the thermonitor being mounted inside the motor in the vicinity of the motor windings, and the NC contact pair of the thermonitor opening to trip the motor starter off thereby to avoid the possible damage to the motor when the temperature in the vicinity of the motor windings exceeds the maximum permissible limit; the retrophaser having a gravitationally balanced armature retained mechanically or electromagnetically and facing two poles of its core, the said two poles of the core being bridged by two ferromagnetic flux paths with airgaps, the said paths passing through two coils one of which has slightly less than half the number of turns as the other and an external resistor in series with it, the said two coils being V-connected to the motor terminals, the coil with the resistor being connected across the leading phase, the relevant parameters of the electromagnetic circuit being chosen to render the armature flux proportional to the negative phase sequence symmetric component of the three phase motor terminal voltages, the NC contact pair of the retrophaser being connected in series with no volt coil of the motor starter and the said pair opening due to the movement of the armature so as to trip the motor starter off thereby to avoid the damage

possible to the running motor when the negative phase sequence symmetric component of the three phase motor terminal voltages exceeds the maximum permissible limit and also to avoid the motor starting in the wrong direction as a result of an accidental reversal of the supply phase sequence; the terophaser having a gravitationally balanced and mechanically or electromagnetically retained armature facing two poles of its core, the said two poles being bridged by three ferromagnetic flux paths with a symmetric air gaps, the said paths passing respectively through three coils having equal turns, the resistances of the three coils being in inverse proportion to the reluctances of the respective flux paths of the three coils, the coils being connected in star to the motor terminals and the star point to the motor body, the armature flux in the said arrangement being proportional to the zero phase sequence symmetric component of the three motor terminal voltage with respect to the star point, the star normally injecting a small zero phase sequence current into the motor body, the NC contact pair of the zerophaser being in series with the no volt coil of the motor starter and the armature moving to open the said NC pair thereby to trip the motor starter off to avoid the possible damage to the motor insulations when the zerophaser sequence symmetric component of the three phase supply voltages with respect to the motor body exceeds the maximum permissible limit and to avoid the possible electrocution without warning when the impedance between the motor body and the earth exceeds the maximum permissible limit.

CLASS 17-E, 32-C, 55-E-4, 60-X-2-(a). 132412.

CULTURE MEDIUM FOR PRODUCTION OF HYDROXYTETRACYCLINE.

KURGAN SKY ZAVOD MEDPREPARATOV, OF KURGAN, USSR.

Application No. 132412 filed August 6, 1971.

5 Claims—No drawings

A process for the preparation of nutrient medium for production of hydroxytetracycline by fermenting micro organisms such as actinomycetes rimosus which comprises: (i) mixing the corn meal with hot water at 60 to 90°C; (ii) adding enzyme such as oryzin or a culture of aspergillus orizion to the mass of step (i); (iii) sterilizing mass of step (ii) with steam and thereafter cooling it rapidly; (iv) preparing a suspension of corn steep liquor, calcium carbonate and hot water; (v) heating the suspension of step (iv) to 40 to 100°C sterilizing and cooling it; (vi) preparing the suspension of ammonium sulphate, calcium carbonate and hot water; (vii) sterilizing the suspension of step (vi); and if desired (viii) placing the sterilizing the suspension of step (iii); (v) and (vii) in a fermentation tank and carrying out the fermentation at a temperature of 25-29°C.

CLASS 72-A & B. 132454.

EMULSION TYPE BLASTING AGENT.

E. I. DU PONT DE NEMOURS AND COMPANY, AT WILMINGTON, DELAWARE, U.S.A.

Application No. 132454 filed Aug. 10, 1971.

24 Claims—No drawings

A water-in-oil-type-emulsion explosive composition comprising a discontinuous aqueous phase containing an inorganic oxidising salt and a continuous phase comprising a water-immiscible carbonaceous fuel, characterized in that the emulsifier used is an alkali metal or ammonium stearate.

CLASS 32-C. 132582.

AN IMPROVED PROCESS FOR THE PRODUCTION OF A FUNGAL ACID PROTEASE USEFUL, FOR EXAMPLE, AS A BATING AGENT IN LEA-

THER MANUFACTURE, AND AS A DIGESTIVE AID.

COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH, RAFI MARG, NEW DELHI-1, INDIA.

Application No. 132582 filed Aug. 19, 1971.

3 Claims—No drawings

A process for the production of an acid protease having optimum activity in the pH range of 3 to 4 and being active and stable at pH 2.0, the process comprising the steps, (a) growing the mold *Penicillium janthinellum* as a stationary culture on a solid nutrient medium consisting of wheat bran or rice bran, water and a nonvolatile acid such as phosphoric acid so as to give the medium a pH 3.5, (b) drying the whole solid culture at a temperature not exceeding 35°C, (c) grinding it to yield a brown powder (product A), which is suitable as a bating agent in leather manufacture, (d) extracting the whole solid culture of product A with a buffer at pH 3.4, (e) subjecting the extract to fractional precipitation with ammonium sulphate to obtain the acid protease (product B) as a precipitate in the range of 40-80% saturation of ammonium sulphate, the said product B being suitable as an aid to gastric digestion after removal of the adhering ammonium sulphate.

CLASS 24-A.

132588.

IMPROVEMENTS IN OR RELATING TO VEHICLE BRAKES.

GIRLING LIMITED, OF KINGS ROAD, TYSELEY, BIRMINGHAM 11, ENGLAND.

Application No. 132588 filed August 20, 1971.

Convention date August 24, 1970 (40573/70) U.K.

4 Claims

An internal shoe drum brake including a pair of brake shoes which can be expanded, against the action of shoe return spring means, by power actuated service brake means a strut of adjustable length which acts between the shoes to determine their spacing from the brake drum, and is relieved of load upon actuation of the service brake means, the strut comprising a pair of relatively rotatable members screw-threaded together, and pawl and ratchet means for effecting relative rotation of the members to lengthen the strut in response to excess travel of the brake shoes upon brake actuation, wherein such relative rotation is effected only when the service brake is operated to relieve the load imposed on the strut by the return spring means, wherein a pawl spring in the form of a coil spring pre-stressed in torsion and in compression acts on the pawl on the one hand to bias it to rotate in a sense to increase the length of the strut and on other hand to urge the pawl laterally into engagement with the ratchet, the rotational force applied to the pawl by the spring being intermediate the force required to overcome the frictional resistance to rotation of the strut parts when the strut is subjected to load by the shoe return springs and the force required to effect such rotation when the shoe return spring load is relieved by service brake actuation.

CLASS 107-B.

132610.

IMPROVEMENTS IN OR RELATING TO FREE PISTON ENGINE.

ANTON BRAUN, OF 6421 WARREN AVENUE MINNEAPOLIS, MINNESOTA 55435, UNITED STATES OF AMERICA.

Application No. 132610 filed August 21, 1971.

14 *Claims*

A free piston engine including combustion causing means for initiating combustion in a cylinder to drive a piston in a power stroke, and sensing means including two relatively movable members operable upon relative movement thereof to produce a variable sensing signal dependent in value upon a characteristic of such relative movement but relatively independent of the relative position of said members, and arranged to control operation of the combustion causing means at an instant when the value of the sensing signal changes by a predetermined amount near the end of the compression stroke of the piston.

CLASS 32F; a.

132762.

PRODUCTION OF ISOBUTYRALDEHYDE FROM ISOBUTYLALCOHOL.

COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH, RAFI MARG, NEW DELH-1, INDIA.

Application No. 132762, filed Sep. 3, 1971.

3 *Claims*—No drawings

A process for the production of isobutyraldehyde from iso-butyl alcohol by oxidation in liquid phase using acidified dichromate as an oxidising agent characterised in that for one mole of iso-butyl alcohol, 0.33 moles of sodium dichromate and 1.33 moles of sulphuric acid (sp. gr. 1.74) are employed.

CLASS 143-D-1.

132796.

IMPROVEMENTS IN OR RELATING TO PLASTIC TRAY FOR EGGS.

HIKOJI NOGUCHI, 125-10 OAZANARAHASHI HIGASHIYAMATO-SHI, TOKYO, JAPAN.

Application No. 132796 filed September 6, 1971.

4 *Claims*

A plastic tray for eggs, which comprises a substantially oblong rectangular body provided at its four sides with flanges extending horizontally outwardly from the body and a plurality of cavities for receiving eggs wherein which are drawn up corsswise in lines; said cavities being shaped as upset truncated cones having at their bottoms circular recesses; projections provided in the middle of each four adjancent cavities and shaped as upright truncated cones having at their top surfaces convex projections a line of projections running along the inner edges of the two of flanges and having the height substantially equal to that of the first mentioned projections; a line of cavities running along the inner edges of other flanges which are opposite to the first-mentioned two flanges; and portions for grasping the tray which are provided to the two of flanges which are opposite each other and have configurations different to each other; the circular recesses provided to the bottoms of cavities being engageable with the convex projections provided to the top surfaces of the first-mentioned projections, and the line of second-mentioned projections coming into abutment with the bottom of the line of the second-mentioned cavities when a number of the trays are heaped in layers in such a manner that they are disposed one upon the other by turning them alternately at an angle of 180° in the horizontal direction; and the portions for grasping the tray indicating to heap the trays in the manner described above and enabling to readily take out tray from a carton when the trays are housed within the carton.

CLASS 57-B.

132817.

IMPROVEMENT AND MODIFICATION IN RELATION TO MANUFACTURING OF HINGES.

ATUL AMRITLAL SHAH, AT PATEL & SHAH BUILDINGS, OPPOSITE NAGARI EYE HOSPITAL, ELLISBRIDGE, AHMEDABAD-6, (GUJARAT

## STATE) INDIA.

Application No. 132817 filed September 7, 1971.

8 *Claims*

A hinge of the type comprising the conventional two flaps in which when one flap is secured to the jamb and the other to the panel and which in the panel closed position face each other, characterised by that when the hinge is opened out to lie on a flat surface, then those portions of each of the two flaps in which are formed the securing holes are not axial with each other to achieve the purpose hereinbefore explained in the use of the said hinge.

CLASS 32-A-1.

132930.

PROCESS FOR THE MANUFACTURE OF WATER-SOLUBLE, FIBRE-REACTIVE DISAZO DYESTUFFS, AND THEIR METAL COMPLEX COMPOUNDS.

FARBWERKE HOECHST AKTIENGESELLSCHAFT VORMANS MEISTER LUCIUS & BRUNING, OF 45, BRUNINGSTRASSE, FRANKFURT/MAIN, FEDERAL REPUBLIC OF GERMANY.

Application No. 132930 filed September 16, 1971.

17 *Claims*

A process for the preparation of water-soluble disazo dyestuffs of the formula (1) of the accompanying drawings, or copper, cobalt or chromium complex disazo dyestuffs which in the metal-free form correspond to the formula (2) wherein A represents the radical of a diazo component of the benzene or naphthalene series, T is hydrogen or a hydroxyl, carboxyl or a low-molecular-weight alkoxy group, X is a hydroxyl or carboxyl group, B is the radical of a coupling component of the benzene-naphthalene or pyrazolone series, D is a bivalent bridging member and Y a group of the formula (3) or a group of the formula (4) wherein Z means a hydroxyl group or an organic or inorganic radical capable of being split off by an alkaline agent, m is a number of from 1 to 6, n is the number 0 or 1 and p a number of from 1 to 3 and wherein the nucleus C or C<sup>1</sup> may contain further substituents, which comprises diazotizing 1 mole of an amino azo dyestuff of the formula (5) or (6) in which A, C, C<sup>1</sup>, T and X are as defined above, and coupling with a coupling component of the formula (7) in which B is as defined above, the components being chosen in such a way that the resulting disazo dyestuff contains besides 1 to 6 sulfonid acid groups 1 to 3 substituents of the formula (3) or (4) and reacting the thus-obtained disazo dyestuffs, if desired, with a copper, cobalt or chromium yielding agent and esterifying, if desired, the hydroxyl group of the group -SO<sub>2</sub>-CH<sub>2</sub>-CH<sub>2</sub>-OH with sulfuric acid or with a compound yielding sulfur trioxide.

CLASS 20-B, 67-C, 29-A.

133011

## AN ENCODER FOR A TEACHING MACHINE.

FRUNZENSKY POLITEKHNIKESKY INSTITUT, OF FRUNZE, PROSPEKT MIRA, 66, USSR.

Application No. 133011 filed September 22, 1971.

2 *Claims*.

An encoder for a teaching machine comprising; a contact-bearing board, whose contacts are electrically connected to the graphic answer input device of the teaching machine, and an encoder board with contacts arranged coaxially with those of the contact-bearing board which is made as a plate of an insulation material, some of the contacts of said boards being separated by an expendable punched card serving as a programme carrier while the encoder board is provided with sockets housing its

contacts which are spring-loaded and can shift in the vertical direction.

CLASS 32F2(a).

133103.

IMPROVEMENTS IN THE ESTERIFICATION OF A NITROBENZOIC ACID WITH GLYCEROL.

ASPRO-NICHOLAS LIMITED, OF 225 BATH ROAD, SLOUGH, BUCKINGHAMSHIRE, ENGLAND.

Application No. 133103 filed Oct. 4, 1971.

Convention date Oct. 8, 1970 (47836/70) U.K.

10 *Claims.*

A method of esterifying a nitrobenzoic acid with glycerol comprising heating at a temperature of at 100°C a mixture of the nitrobenzoic acid and glycerol in the presence of (a) a catalytic quantity of an acid esterification catalyst, which is soluble in the reaction mixture at the reaction temperature, and (b) an entraining liquid having its boiling point above 100°C to separate liberated water by azeotropic distillation.

CLASS 151-C&F & 48-A-1.

133234.

METHOD OF AND APPARATUS FOR FORMING FLAT STRIPS OF FLEXIBLE MATERIAL INTO TUBULAR MEMBERS WITH LONGITUDINAL SEAMS.

INTERNATIONAL STANDARD ELECTRIC CORPORATION, OF 320 PARK AVENUE, NEW YORK 22, NEW YORK, U.S.A.

Application No. 133234 filed Oct. 14, 1971.

Convention date Oct. 16, 1970 (49307/70) U.K.

6 *Claims.*

Apparatus for forming a flat strip of flexible material into a tubular member with a longitudinal seam, including a block of material provided with a circularly cross-sectional aperture and a slot, which slot is transverse tangential to the aperture and communicates therewith along its length, wherein the slot gradually decreases in depth from the inlet end for the flexible material to the outlet end therefor, and wherein the base of the slot and the axis of the aperture are so arranged that one is longitudinally tangential to the other.

CLASS 179-D-F.

133237.

IMPROVEMENTS IN OR RELATING TO THE HERMETIC SEALING OF CONTAINERS.

SUNIT KUMAR MUKHERJEE, 18A, NAFAR CHANDRA DAS ROAD, CALCUTTA-34, WEST BENGAL, INDIA.

Application No. 133237 filed October 15, 1971.

Addition to No. 111817.

3 *Claims.*

An improved closure unit for the maintenance of vacuum or stopping exchange of atmospheric air in containers containing materials, which comprises suitable closure, threaded or otherwise, fitted inside with a circular piece of resilient material, such as cork, rubber or the like, over which there is further provided a round piece of sheet of plastic material, the diameter of which is nearly same as the outside diameter of the said circular piece.

CLASS 34-A.

133384.

PROCESS FOR THE PRODUCTION OF HIGHLY CRIMPED HIGH TENACITY RAYON STAPLE FIBRE.

ITT INDUSTRIES, INC., OF 320 PARK AVENUE, NEW YORK 22, NEW YORK, U.S.A.

Application No. 133384 filed Oct. 27, 1971.

6 *Claims—No drawings.*

A process for producing crimped rayon filaments and staple fibres, including preparing a viscose spinning solution having a viscosity between 80 and 140 ball fall seconds and a salt (NaCl) index of between 2.5 and 6 and modified by a mixture of viscose modifiers, fully decratering the modified viscose solution, spinning the modified viscose spinning solution at a temperature of 35 to 45°C into a coagulating bath containing from 4 to 6 per cent by weight sulphuric acid, from 1 to 6 per cent zinc sulphate (ZnSO<sub>4</sub>) and from 10 to 20 per cent sodium sulphate (Na<sub>2</sub>SO<sub>4</sub>) to obtain coagulated, incompletely regenerated viscose filaments, withdrawing the coagulated viscose filaments from the coagulating bath and, while the filaments are still substantially soluble in dilute alkali solution, stretching the filaments by up to 120 per cent of their original length and, while the filaments are being stretched, initiating the regeneration of the filaments with a hot dilute acid bath, immediately thereafter completing the regeneration of the filaments, relaxing the tension of the filaments to permit crimp development and washing and desulphurizing the filaments to produce highly crimped rayon filaments, or whose the filaments are cut, staple fibre product.

CLASS 144-E-6.

133498.

PROCESS FOR PREPARATION OF NEW DAYLIGHT FLUORESCENT PIGMENTS.

FARBWERKE HOECHST AKTIENGESELLSCHAFT VORMALS MEISTER LUCIUS & BRUNING, OF 45, BRUNINGSTRASSE, FRANKFURT/MAIN, FEDERAL REPUBLIC OF GERMANY.

Application No. 133498 filed November 5, 1971.

5 *Claims—No drawings.*

Process for the preparation of daylight fluorescent pigments which contain an organic fluorescent dyestuff and as resin a condensation resin, consisting of copolymerizates of (meth)-acrylates containing groups capable of being cross-linked and of vinyl compounds capable of being copolymerized, which are cross-linked with unplasticized, alcohol-modified urea or amino-triazine formaldehyde resins which comprises: (1) incorporating organic fluorescent dyestuff in said condensation resins by either dissolving or dispersing said fluorescent dyestuff either in the mixture of the solutions of copolymerizate and cross-linking resin to be condensed or in the individual resin solution and thereafter curing the resins.

CLASS 206-E, 186-E, 194-C<sup>1</sup>, C-11.

133623.

A SOLID STATE JUNCTION DEVICE.

RAYTHEON COMPANY, OF LEXINGTON, COUNTY OF MIDDLESEX, COMMONWEALTH OF MASSACHUSETTS, UNITED STATES OF AMERICA.

Application No. 133623 filed November 15, 1971.

Convention date September 20, 1971. (43767/71) U.K.

13 *Claims.*

A solid state junction device comprising a plurality of layers of material forming a substantially unidirectionally conductive junction, the layers comprising a first layer of semi-conductor material and a second layer having a resistance in a direction parallel to the junction which is substantially greater than the resistance through the layer in a direction normal to the junction, means for producing reverse voltage bias across the junction, and means for injecting charge carriers into the region of the junction.

CLASS 66-B.

133754.

## AN ELECTRIC TORCH.

HOMI RUSTOMJI VAKIL, AT FLAT NO. 27, MALSON BELVEDERE, 107 MAHARSHI KARVE ROAD, BOMBAY-20, STATE OF MAHARASHTRA, INDIA.

Application No. 133754 filed Nov. 26, 1971.

## 2 Claims.

An electric torch comprising insulated housing and bulb-reflector assembly, it being powered by an even number of cells arranged in the housing in series in two rows of an equal number of cells, the cells in each row being kept in position by a coiled conducting spring pressing against the cell opposite to it, the said springs being connected by a conducting bar at their bases, the positive electrodes of the cells in the lowest row pointing towards the spring and the positive electrodes of the cells in the upper row pointing towards the bulb-holder, the first cell in the upper row being in contact with the bulb-holder, the first cell in the lower row being in contact with a dimple at the lowest point of the ring conductor located in the circular opening of the housing, the said ring conductor having a bar disposed perpendicularly to its plane at its uppermost point, the said bar being in contact with another bar of the switch of the torch, the bulb-reflector assembly comprising the bulb-holder providing with a flange conductor and a reflector protected by a glass cover, and the switch, when moved of the "on" position, operates to slide the said another bar longitudinally to establish contact with the flange conductor to complete the circuit.

CLASS 65-A, 68-A.

133755.

## A RECHARGING UNIT FOR AN ELECTRIC TORCH.

HOMI RUSTOMJI VAKIL, FLAT NO. 27, MAISON BELVEDERE, 107 MAHARSHI KARVE ROAD, BOMBAY-20, STATE OF MAHARASHTRA, INDIA.

Application No. 133755 filed November 26, 1971.

## 2 Claims.

A sealed unit for charging de-energised cells of an electric torch when the switch of the torch is kept on, such unit being adapted to fit into the opening of the torch in place of the bulb-reflector assembly removed for the purpose, the unit comprising an insulated holder having a positive terminal which is in contact with the positive electrode of the first of the cells of the torch arranged in series and which holder is in contact with the switch of the torch through a flanged conductor mounted on it, the flanged conductor forming the negative terminal of the holder, the positive terminal of the holder being connected inside the unit in series to a rectifier and one terminal of the secondary of a transformer, the flanged conductor on the holder being connected by a wire to the other terminal of the secondary of the transformer, the terminals of the primary of the transformer emerging from the front seal of the unit being connected to the mains.

CLASS 32-F<sub>1</sub>, 32-F-3(a), 32-F-3(b), 55-E<sub>2</sub>, 55-E<sub>4</sub>

60-X-2(d).

133812.

## PROCESS FOR THE PRODUCTION OF OPTICALLY ACTIVE SUBSTITUTED PROSTAGLANDIN ANALOGS.

THE UPJOHN COMPANY, OF 301 HENRIETTA STREET, KALAMAZOO, MICHIGAN, UNITED STATES OF AMERICA.

Application No. 133812 filed November 30, 1971.

## 9 Claims.

A process for producing an optically active compound of the formula VIII shown in the accompanying drawings or a racemic compound of that formula and the mirror image thereof, wherein (a) X is trans-CH=CH- or -CH<sub>2</sub>CH=, and Y and Z are both -CH<sub>2</sub>CH= or (b) X is trans-CH<sub>2</sub>=CH-, Y is cis-CH<sub>2</sub>=CH-, and Z is -CH<sub>2</sub>CH= or cis-CH<sub>2</sub>=CH-; where in D is a group of the formula shown in figure 1 or 2 of the drawings wherein R<sub>2</sub> is methyl or ethyl; and where in R<sub>1</sub> is hydrogen or alkyl of one to 8 carbon atoms inclusive, which comprises the steps, (1) preparing an optically active compound of the formula X shown in the drawings or a racemic compound of that formula and the mirror image thereof, wherein A is alkyl of one to 4 carbon atoms, inclusive, phenyl, phenyl substituted with one or 2 fluoro, chloro, or alkyl of one to 4 carbon atoms, inclusive, or aralkyl or 7 to 12 carbon atoms, inclusive; wherein R<sub>3</sub> is hydrogen, alkyl of one to 8 carbon atoms, inclusive, or -Si-(a)<sub>3</sub> wherein A is as defined above; and wherein D, X, Y, Z are as defined above, by reacting an optically active compound of the formula IX shown in the drawings or a racemic compound of that formula and the mirror image thereof, wherein D, R<sub>1</sub>, X, Y, and Z are defined above, with a silylating agent, (2) forming an optically active compound of the formula XI shown in the drawings or a racemic compound of that formula and the mirror image thereof, wherein R, R<sub>2</sub>, R<sub>3</sub>, X, Y and Z are as defined above, by oxidizing the reaction product of step (1) with a reagent which selectively oxidizes secondary hydroxyl to carbonyl in the presence of carbon-carbon double bonds, and (3) hydrolyzing the reaction product of step (2).

CLASS 104-F.

134154.

## PROCESS FOR CYCLIZATION OF RUBBER.

CHIEF SCIENTIST, RESEARCH & DEVELOPMENT ORGANIZATION, MINISTRY OF DEFENCE, GOVERNMENT OF INDIA, NEW DELHI (INDIA).

Application No. 134154 filed December 31, 1971.

## 4 Claims—No drawings.

A process for the cyclization of rubber with sulphuric acid characterized by preparing a 8% solution of masticated natural rubber in benzene, cyclizing the solution of rubber with a 60% dilute sulphuric acid in the presence of phenol, the weight ratio of natural rubber, sulphuric acid and phenol being about 1 : 0.4 : 1.5 respectively under reflux at temperature around 80°—5 1°C for 12 to 14 hours followed by recovering by known methods the cyclized rubber from the mother liquor.

CLASS 127-I.

134185.

## A POWER PRODUCING PLANT OR PRIME MOVER.

POCNAM CHAND LIKHAJI MISTRY, OF VILLAGE TAKHATGARH, P.O. TAKHATGARH, TEHSIL BALI, DISTRICT PALI, DIVISION JODHPUR, RAJASTHAN.

Application No. 134185 filed January 4, 1972.

## 16 Claims.

A power producing plant or prime-mover running without any fuel, electricity, gas or fluid pressure or the like media, comprising a hub mounted on a shaft supported on bearings fixed over a frame, the hub having at least two identical outer rims of substantially larger diameter each arranged on either faces of the hub and connected with the hub by at least two sets of arms thereby the hub with the rims and arms forming a rotating wheel wherein the adjoining arms of the said two sets are arranged in pair and at a radially inclined position bet-

ween the hub and the outer rims, each arm having a slit centrally to its axis and in-between each pair shafts passing through the pair of slits of the parallelly arranged pair of arms whereby the rollers can radially slide and can rotate with their shafts sliding inside the said slits, each arm is being further provided with a gravity catch automatically holding a releasing the rolled; a guide fitted centrally at the lower side of the device between the pair of rims to push the rollers towards the centre of the wheel when the rollers slide over the guide, a spring loaded impact block arranged between the pair of rims which impact block moves horizontally by the impact of the falling rollers, a shaft connecting the impact block at the centre with two bell-crank levers at its two ends wherein each lever is centrally pivoted and connected with one connecting rod at one end a sliding toothed rack at the other end, the said connecting rod and the toothed rack operating as aiding devices for the rotation of the wheel, the prime-mover being further provided with pneumatic device for controlling the motion of the wheel, manual brake arrangement and a power pulley fitted on the main shaft to transmit power.

CLASS 68-A. 134356.

BATTERY CHARGING SYSTEMS FOR ROAD VEHICLES.

JOSEPH LUCAS (INDUSTRIES) LIMITED, OF GREAT KING STREET, BIRMINGHAM-19, ENGLAND.

Application No. 134356 filed January 22, 1972.

Convention date January 26, 1971 (3144/71) U.K.

*3 Claims.*

A battery charging system for a road vehicle comprising in combination a battery having a live terminal and an earthed terminal, an alternator, rectifier means associated with said alternator and producing a d.c. output between a first output line and earth, and also producing a second d.c. output between a second output line and earth, the first output line being connected to the live battery terminal, and the second output line being connected to the first output line through a series circuit including a warning lamp and the ignition switch of the vehicle, a resistance chain one end of which is earthed and the other end of which is connected to the live battery terminal through a sensing lead, a zener diode coupling a point on said resistance chain to the base of an input transistor, an output transistor controlling current flow in the field winding of the alternator, and means interconnecting the input and output transistor so that the input transistor controls conduction of the output transistor to regulate the output of the alternator, the system further including a second resistance chain connected between the second output line and earth, and a diode coupling a point on the second resistance chain to the Zener diode, the arrangement being such that in the event of the first output line breaking or otherwise becoming disconnected, the output voltage of the alternator will rise and current will flow through said diode to turn on the input transistor, so reducing the current flow in the field winding.

CLASS 14-B. 134760.

DRY CELLS AND RECHARGEABLE NICKEL CADMIUM CELLS.

NARASINHA GOVIND KAMAT, C/O. BHARAT STEEL TUBES LIMITED, GANAUR, DISTRICT ROHTAK, HARYANA, INDIA.

Application No. 134760 filed February 28, 1972.

*8 Claims.*

A dry cell in which the outer casing is made of plastic material with one or the first end cap or disc cast integrally therewith and made of similar material, a contact strip in said end cap or disc being also cast with it to be partly exposed and extending to the inside of the casing, the other or second end disc or cap being also made of plastic material but as an independent unit to be secured to the casing, the contact strip of the said other end disc being cast with the said end disc and partly exposed.

CLASS 37-A, 80-F.

134810.

INDUSTRIAL-TYPE VARIABLE-SPEED CENTRIFUGE

GLOBE-UNION INC., OF 5757 N. GREEN BAY AVENUE, MILWAUKEE, WISCONSIN 53201, UNITED STATES OF AMERICA.

Application No. 134810 filed on March 2, 1972.

*23 Claims.*

An electric-powered, variable-speed centrifuge suitable for heavy industrial loads comprising in combination.

(a) an outer housing with loading aperture; (b) removable cover means for said aperture to provide access to the interior of said housing for loading and unloading purposes and to close said aperture during centrifuging operations; (c) support means for the load to be centrifuged, said support means being rotatably mounted within said housing and accessible for loading and unloading through said aperture; and (d) drive means exterior of said housing for rotating said support means, said drive means comprising; (1) a hydraulic motor operatively connected to said support means for rotating the same, said hydraulic motor having a hydraulic inlet and outlet, (2) a hydraulic pump as a source of hydraulic fluid under pressure for said hydraulic motor, said hydraulic pump having a hydraulic inlet and outlet, (3) a prime mover operatively connected to said hydraulic pump to drive the same, (4) a reservoir for hydraulic fluid for said hydraulic pump and said hydraulic motor, (5) hydraulic passageways providing fluid communication between said reservoir and the inlet of said hydraulic pump, between the outlet of said hydraulic pump and the inlet of said hydraulic motor and between the outlet of said hydraulic motor and said reservoir, (6) an adjustable hydraulic pressure controller controlling the pressure in the hydraulic passageway to the inlet of said hydraulic motor so as not to exceed a pre-determined maximum pressure, (7) an adjustable hydraulic flow controller in the hydraulic passage way in the inlet of said hydraulic motor controlling the flow rate to said hydraulic motor so as not to exceed a predetermined maximum flow rate, and (8) means for throttling the flow of hydraulic fluid from said hydraulic motor to said reservoir responsive to de-energization of said hydraulic pump.

CLASS 107-H, 6-A-3.

135126.

*DIRECT-FLOW CYLINDRICAL VALVE.*

MARK ISAAKOVICH FRENKEL, OF LENINGRAD, ULITSA KARBYSHEVA, 6, KORPUS 2, KV. 20. USSR.

Application No. 135126 filed April 1, 1972.

*7 Claims.*

A direct-flow cylindrical valve comprising a pack assembled seriesly arranged elements each of which includes ring-shaped members; a seat having inlet passageways for a working medium and at least one flexible plate clamped along one of its circular edges; inlet passageways for a working medium are made in the form of radial slots disposed at least on one end face of the seat and

open at the side of one of its cylindrical surfaces so that the working medium washes the plate surface along the entire length of the slots.

CLASS 117-A.

135284.

## A COMPOSITE LOCK

MESSRS. KOSMEK PLASTICS MANUFACTURING LIMITED, OLD BPT ROAD, MAHUL, TROMBAY,

BOMBAY 74, MAHARASHTRA STATE, INDIA

Application No. 135284 filed April 15, 1972.

## 9 Claims

A composite lock comprising a moulded rotatable latch held in pressure contact against a moulded lock-plate by engagement members, said lock-plate having a key hole and said rotatable latch having a central aperture axially aligned with said key hole and at least one additional aperture so that a key inserted through the key hole engages said rotatable latch for rotating the latter into a locking or unlocking position.

CLASS 66-B.

135313.

## IMPROVEMENTS IN OR RELATING TO MINER'S ELECTRIC TORCHES

MADAN MOHAN DEY AND MADHU SUDAN DEY, OF 13 OLD CHINA BAZAR STREET, CALCUTTA 1, WEST BENGAL, INDIA.

Application No. 135313 filed April 18, 1972.

## 4 Claims

A miner's electric torch comprising a bulb loosely fitted within an insulating holder, the socket end of the bulb being acted upon by a spring pressed movable terminal housed within the upper part of the holder, the said spring pressing the upper terminal is housed at its upper end within an extension sleeve formed round the upper terminal and the lower end of the said spring is also held within an extension sleeve formed round another terminal securely fixed to the holder within its lower part by screw threaded arrangement which another terminal engages battery head and further that the bulb is formed with a pointed end so as to engage a small seat rigidly secured at the centre of the inner face of the glass in front of the reflector of the torch and provided for housing the said pointed end of the bulb so that when the glass in front of the reflector is fitted on to the torch the said glass being so positioned with relation to the holder in the torch that the bulb is pressed against the spring housed in the holder to maintain its connection with the battery head, but as soon as the said glass is damaged or broken the bulb is released from its hold on the said glass either by dislocation of the seat in the said glass or by the breaking of the bulb head due to impact thereon because of the damage to the said glass and the bulb is thrown out of the holder and is disconnected from the battery head.

CLASS 24-B, 127-A, 136-E.

135316.

## PROCESS FOR MAKING SEMI-METALLIC ARCUATE LINING SEGMENTS IN PARTICULAR FOR BRAKES

THE BENDIX CORPORATION, AT EXECUTIVE OFFICES, BENDIX CENTER SOUTHFIELD, MICHIGAN U.S.A.

Application No. 135316 filed April 18, 1972.

## 7 Claims

A process for the preparation of a semi-metallic friction material arcuate segment which comprises the steps of mixing ingredients which include graphite, metal and an organic binder to uniformly disperse said ingredients; filling a pan with said mixture to a level that is deeper toward two ends of the pan than the middle portion of

the pan; heating the filled pan until the temperature of the mixture is greater than the flow temperature of the organic binder but less than the cure temperature of the organic binder; pressing said heated material with a die to obtain an arcuate segment; and heating said arcuate segment to a temperature greater than the curing temperature of the organic binder to obtain a hard and rigid arcuate segment.

CLASS 53-C, 127-G.

135337.

## PLANETARY TRANSMISSION

DANA CORPORATION, OF 4500 DORR STREET, CITY OF TOLEDO, STATE OF OHIO, UNITED STATES OF AMERICA.

Application No. 135337 filed April 19, 1972.

## 14 Claims

A planetary transmission of the type including a housing, an input shaft an output shaft, a planetary gear carrier secured to the input shaft, a sun gear secured to the output shaft, a ring gear secured to the housing, and planet gears journaled on the carrier and meshed with the sun and ring gears, in which (characterized in that) the input shaft extends completely through the housing, and has both of its ends exposed externally of the housing, the output shaft extends from the interior of the housing to the exterior thereof, a plurality of sun gears are secured to the output shaft interiority of the housing, a corresponding number of sets of planet gears are supported by the carrier for rotation relatively thereto, each set meshing with one of the sun gears, a corresponding number of ring gears are supported within the housing for rotation relatively thereto, and rotation relatively to each other, each set of planet gears meshing with one of the ring gears, and a selectively operable mechanism is provided for sequentially locking a selected one of the ring gears against rotation relatively to the housing.

CLASS 125-B, 173-B.

135381.

## DEVICE FOR DISPENSING FLUIDS

DESPAK INDUSTRIES LIMITED, OF FIELDINGS ROAD, CHESHUNT, WALTHAM CROSS, HERTFORDSHIRE, ENGLAND.

Application No. 803/72 filed July 7, 1972.

Convention date July 19, 1971 (33793/71) U.K.

## 16 Claims

A device for dispensing fluid from an aerosol container of the kind described comprising a duct having an inlet and an outlet, means to receive the spray head of the aerosol in sealing engagement therewith so that on actuation of the aerosol a discrete dose of fluid is stored at least partially in the spray head, a flow sensor arranged in the duct and a valve connected to the flow sensor such that when the pressure at the outlet of the duct falls below the pressure on the inlet side by a predetermined amount the valve connects the said receiving means to the duct so that the dose of fluid is free to pass into the duct.

CLASS 32-E.

135382.

## PROCESS FOR POLYMERISING A CONJUGATED DIENE

SNAM PROGETTI S.p.A., OF CORSO VENEZIA 16, MILANO, ITALY.

Application No. 667/Cal/73 filed March 24, 1973.

Division of Application No. 130270 dated February 15, 1971.

## 15 Claims

A process for polymerizing a conjugated diene, which comprises effecting the polymerization in a hydrocarbon medium in the presence of a catalytic system which in-

cludes (a) a compound of a transition metal selected from Groups IV to VIII of the Periodic Table, and (b) a partially halogenated polyimine of aluminium having in its molecule repeated units of the following formula;



wherein R is an alkyl, cycloalkyl or aryl group, n is an integer in the range from 2 to 50, and X is a halogen or hydrogen atom, with the proviso that in the molecule both hydrogen and halogen atoms are present.

CLASS 32-D, 40-B.

135383.

## PROCESS FOR PREPARING A POLYIMINE OF ALUMINIUM

SNAM PROGETTI S.p.A. OF CORSO VENEZIA 16, MILANO, ITALY.

Application No. 1135/Cal/73 filed May 15, 1973.

Division of Application No. 130270 filed February 15, 1971.

## 6 Claims—No drawings

A process for preparing a polyimine of aluminium, having in its molecule repeated units of the following formula:



wherein R is an alkyl, cycloalkyl or aryl radical, n is an integer having a value from 2 to 50, and X is a halogen or hydrogen atom, with the proviso that in the molecule both halogen and hydrogen atoms are present, which process comprises reacting a polyiminoalane having in its molecule repeated units of the formula,



where R and n are as defined above in this claim, with a halide so as to cause partial replacement of the hydrogen atoms in the polyiminoalane by halogen atoms.

CLASS 39-B.

135384.

## PROCESS FOR REPAIRING ANHYDROUS ALUMINIUM CHLORIDE

SUMITOMO CHEMICAL COMPANY, LIMITED OF 15, KITAHAMA-5-CHOME, HIGASHIKU, OSAKA, JAPAN.

Application No. 762/Cal/73 filed April 3, 1973.

Division of Application No. 131697 filed June 14, 1971.

## 5 Claims

A process for the production of active anhydrous aluminium chloride, which comprises reacting metallic aluminium with anhydrous hydrogen chloride using at least one member of trihalogenated benzenes as a solvent.

CLASS 179-M.

135385.

## METHOD OF AND APPARATUS FOR SEALING PLASTIC CONTAINERS

CONICAL CONTAINERS COMPANY (PROPRIETARY) LIMITED, OF PRICE STREET EXTENSION, INDUSTRIA WEST, JOHANNESBURG, TRANS-VAAL, REPUBLIC OF SOUTH AFRICA.

Application No. 412/1972 filed June 3, 1972.

## 9 Claims

A method of sealing plastic containers having a pouring spout including the steps of moving a heating element

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along the longitudinal axis of the pouring spout and towards the edges of the pouring spout, melting the edges of the pouring spout with the heating element until the edges of all of the layers of material comprising the pouring spout are fused together and clamping the fused edges of the pouring spout between suitable jaws.

CLASS 206-E.

135386.

## A WAVEGUIDE SYSTEM

RCA CORPORATION, 30 ROCKEFELLER PLAZA, NEW YORK, NEW YORK, 10020 UNITED STATES OF AMERICA.

Application No. 2240/72 filed December 27, 1972.

Division of Application No. 131026 filed April 19, 1971.

## 2 Claims

A waveguide system including a rotary joint for the coupling of signals within at least two frequency bands through said rotary joint comprising; a first circular waveguide structure, a second circular waveguide structure spaced from said first circular waveguide structure by said rotary joint, said first and second circular waveguide structures each having first and second ports, means responsive to signals within a first of said frequency bands at the first port of said first circular waveguide structure for exiting said signals within a first of said frequency bands in the  $TM_{01}$  mode along said first circular waveguide structure, means for coupling said signals within said first frequency band in the  $TM_{01}$  mode from the first circular waveguide structure through the rotary joint to said second circular waveguide structure, means responsive to said signals within said first frequency band in the  $TM_{01}$  mode at said second circular waveguide structure for the coupling of said signals within said first frequency band in the  $TM_{01}$  mode out of the first port of said second circular waveguide structure, means responsive to signals within a second of said frequency band at the second port of said second circular waveguide structure for exciting said signals within said second frequency band in the linearly polarized  $TE_{11}$  mode along said second circular waveguide structure, means along said second circular waveguide structure responsive to said second frequency band signals in said linearly polarized  $TE_{11}$  mode for transforming said second frequency band signals to circularly polarized  $TE_{11}$  mode signals, means for coupling said second frequency band signals in the circularly polarized  $TE_{11}$  mode from said second circular waveguide structure through said rotary joint to said first circular waveguide structure, means at said first circular waveguide structure responsive to said second frequency band signals in said circularly polarized  $TE_{11}$  mode for transforming said second frequency band circularly polarized  $TE_{11}$  mode signals to second frequency band linearly polarized  $TE_{11}$  mode signals, and means responsive to said second frequency linearly polarized  $TE_{11}$  mode signals at said first circular waveguide structure for the coupling of said signal in said second frequency band out of the second port of said first circular waveguide structure.

CLASS 37-B.

135387.

## CENTRIFUGAL MACHINE

FIVES LILLE-CAIL, OF 7, RUE MONTALIVET, 75383 PARIS CEDEX 08, FRANCE.

Application No. 326/72 filed May 26, 1972.

## 12 Claims

A centrifugal machine comprising a rotor mounted on a rotary driving shaft, the machine being characterised in that the rotor is mounted on the shaft by means of a universal joint which is resiliently connected to the shaft

and to the rotor in such a manner that it can be displaced transversely relatively to the axes of the shaft and the rotor.

#### Appeal Proceedings

The appeal filed by Harbanslal Malhotra and Sons Pvt. Ltd., against the decision of the Deputy Controller of Patents and Designs on an opposition to the grant of a patent on application No. 77158 and notified in the Gazette of India Part III, Section 2 dated the 5th December, 1970 has been withdrawn.

#### Patents Sealed

126233 126793 126806 126829 126850 126852 126884  
126947 126991 126996 128098 128160 128189 128191  
128197 128390 128505 128689 129028 129066 129739  
129906 129943 130038 130521 130789 131244 131325  
131514 131629 134897

#### Amendment Proceedings Under Section 57

The amendments proposed by Nippon Kokan Kabushiki Kaisha, in respect of Patent Application No. 127109 as advertised in Part III Section 2 of the Gazette of India dated the 10th March 1973 have been allowed.

#### Patents Deemed to be Endorsed with the Words "Licences of Right"

The following patents are deemed to have been endorsed with the words "Licences of right" under Section 87 of the Patents Act, 1970. The dates shown in the crescent brackets are the dates of the patents.

#### No. and Title of the Invention

105449 (25-5-66) Process for the production of low silicon, medium-to-low carbon ferromanganese.  
105453 (26-5-66) An improved process for enhancing the plasticity of clays.  
105457 (26-5-66) Inhibiting premature vulcanization of diene rubber.  
105460 (11-9-64) Process and apparatus for preparing neutralization composition for neutralization of  $\alpha$ -olefin polymer deashing liquids.  
105461 (27-5-66) Process for the purification of lactams.  
105474 (24-6-65) Manufacture of blocked isocyanate compositions.  
105477 (14-6-65) Tea extracts and a process for the preparation thereof.  
105487 (28-5-66) Method and apparatus for heat and chemical recovery from waste liquors.  
105492 (30-5-66) Process for the preparation of polyvinyl chloride.  
105499 (30-5-66) A method for the preparation of new cyclopropyl compound, preparation of gel therefrom and the compound so obtained.  
105504 (30-5-66) The continuous preparation of glycol phthalates.  
105508 (30-5-66) Process for the manufacture of vinyl acetate and catalyst therefor.  
105525 (31-5-66) Manufacture of oil bound distemper in powder form.  
105527 (31-5-66) Process and plant for obtaining high purity styrene from petrochemical by-products.  
105529 (31-5-66) Process for the manufacture of epoxy compounds.  
105530 (31-5-66) Preparation of epoxide compounds

#### No. and Title of the Invention

105550 (1-6-66) Improvements in or relating to the sterilisation of milk products.  
105557 (3-6-65) Improvements in and relating to the separation of organic compounds.  
105558 (1-6-66) Process and apparatus for the separation of droplets of one liquid from a second liquid which is immiscible with the first.  
105562 (2-6-66) Production of sodium phosphates.  
105568 (21-2-66) Process for the production of tetra- $\alpha$ -substituted anthraquinone derivatives.  
105581 (3-6-66) Method for the purification of the liquids and adsorbent compositions thereof.  
105584 (3-6-66) Process for preparing allyl chloride and its monomethyl substitution products.  
105597 (6-6-66) Method for processing an isotropic solid substances.  
105606 (7-6-66) An improved process for the manufacture of salicylanilide.  
105619 (10-11-65) Biocidal compositions.  
105620 (7-6-66) Improvements in or relating to the preparation of hardenable nitrogen containing synthetic resinous products.  
105629 (8-6-66) A method for producing hot water by means of combustion gases from sulphite or sulphate cellulose processes and apparatus for carrying out the method.  
105654 (10-6-65) Process for dispersion polymerization of a monomer in an organic liquid.  
105655 (9-6-66) Explosive composition and method of manufacturing the same.  
105657 (9-6-66) Process for the manufacture of urea.  
105682 (13-6-66) Water-soluble disazo dyestuffs, their complex metal compounds and process for preparing them.  
105686 (13-6-66) A process relating to the production and isolation of para and ortho-xylenes from coke-oven or naptha based meta-xylene cuts or meta-xylene.  
105704 (13-6-66) Halogenated dihydroxydiaminoanthraquinones, process for their manufacture and materials dyed therewith.  
105715 (14-6-66) Process for the manufacture of refractory grade reactive alumina.  
105717 (14-6-66) Cellulosic bleaching process.  
105718 (14-6-66) A novel equimolecular compound, method of preparing same and insecticidal composition comprising said compound.  
105721 (14-6-66) Process for regenerating palladium carrier catalysts for use in the manufacture of vinyl acetate.  
105728 (14-6-66) Improvements in or relating to welding flux and process for the production thereof.  
105729 (14-6-66) Production of ammonium-free manganese sulphate from double salts of manganese sulphate with ammonium sulphate.  
105732 (15-6-66) Improvements in the process for the preparation of desiccant from gypsum.  
105738 (15-6-66) Process for the production of reactive dyes.  
105741 (15-6-66) A method of making a dry fungicidal bordeaux composition.

1	2	1	2
105755 (15-6-66) Process for the preservation of food materials.		106036 (5-7-66) Process for obtaining phenolic resin foams.	
105783 (29-6-65) Cellular composition and a process for the preparation thereof.		106038 (22-7-65) Improvements in and relating to the treatment of pigments.	
105800 (18-6-66) Improvements in or relating to the preparation of 2-2'-azo-bis-2-4, dimethyl valerohitrile, a catalyst for the polymerization of vinyl chloride.		106049 (6-7-66) A process for the simultaneous preparation of sodium polyphosphate and sodium nitrate from trisodium phosphate.	
105802 (12-11-64) Improved process for the production of polymeric material.		106057 (6-7-66) A process for the preparation of a2-imino-1, 3 dithiolane dihydrogen sulfate.	
105817 (20-6-66) Process for the preparation of a modified aminotriazinic resin and its mixtures for the production of laminates which can be moulded under low pressure and can be after-shaped.		106070 (7-7-66) Production of alkylthiokarbamates and herbicidal compositions containing same.	
105832 (21-6-66) Process for the production of nitrogenous condensation products.		106086 (8-7-66) Process of producing sponge iron.	
105849 (22-6-66) Process of treating a fibre-forming synthetic linear polyamide, a light stabilized composition containing said linear polyamide and fibres or shaped articles made from said composition.		106090 (8-7-66) Gross-linkable acrylonitrile copolymers and production thereof.	
105861 (23-6-66) A new method of biosynthesis of protein concentrates from gas oil.		106112 (11-7-66) Process for the preparation of high molecular weight polymers of conjugated dienes.	
105895 (25-6-66) A pneumatic process for the conversion of phosphoric pig-irons.		106119 (11-7-66) Reactive monoazo dyes, process for their production and materials dyed or padded therewith.	
105896 (25-6-66) Improvements in the manufacture of high permeability manganese zinc ferrites.		106145 (12-7-66) Insecticidal compositions for combating insects in cotton plants.	
105904 (25-6-66) Process for the preparation of catalytic composition.		106148 (12-7-66) Process for preparing allyl chloride and its monomethyl-substitution product.	
105917 (27-6-66) Manufacture of aluminium-magnesium alloys.		106158 (13-7-66) Process and apparatus for the fluidized bed oxidation of spent liquors.	
105918 (27-6-66) Process for the manufacture of copolymers.		106161 (13-7-66) Process for obtaining parachloro phenyl isocyanate.	
105919 (27-6-66) Copolyacetals and process for their manufacture.		106175 (14-7-66) Disintegrating leather waste to utilise same as manure.	
105952 (28-6-66) Herbicidal compositions containing azides.		106176 (14-7-66) Improvements in clarifying waste effluents from de-inking processes.	
105953 (28-6-66) Method of preserving vegetable products.		106177 (14-7-66) Continuous process for producing cyclodecadiene by the cycloooligomerization of butadiene and ethylene.	
105971 (29-6-66) Fungicidal composition.		106181 (16-3-66) Isolation of metallisable, black mono-azo dyestuffs.	
105979 (30-6-66) Roasted meat flavor and aroma enhancing composition, edible composition and process for preparation thereof.		106191 (20-7-65) Process of and apparatus for separating a crystallisable component.	
105985 (1-7-66) Production of acid anhydrides including isatoic anhydride and certain halo derivatives thereof.		106210 (20-8-65) Improvements in or relating to the treatment of pigments.	
105995 (1-7-66) New anthraquinone dyestuffs and process for their manufacture.		106213 (18-3-66) Process and composition for protecting polymers.	
106000 (2-7-66) Process for the treatment of phosphorous slime especially for the treatment of aged or mechanically soiled slime.		106226 (23-7-65) Explosive compositions and a process for preparing them.	
106008 (2-7-66) Process for the preparation of liquid polymers.		106227 (18-7-66) Process for the manufacture of titanium dioxide pigment for delustering polyamide fibres.	
106010 (2-7-66) Method for manufacturing phosphoric acid and hemihydrate calcium sulphate by the wet process.		106228 (18-7-66) Process for preparing water-insoluble mono-azo dyestuffs.	
106013 (4-7-66) Process for the preparation of polyester/polyimide copolymers, in particular for use as wire-enamel varnishes.		106229 (18-7-66) Benzothioxanthene dyestuffs and process for their manufacture.	
106035 (5-7-66) A process for extracting fatty substances and lipides from a proteinaceous material from fish and other aquatic animals.		106251 (19-7-66) Process for producing aromatic hydrocarbons.	
		106268 (20-7-66) Process for the production of aluminium based alloys.	
		106273 (20-7-66) Esters of terephthalic acid and method for their preparation.	
		106282 (21-7-66) Process for the manufacture of fatty acid glycerides.	

1	2
106284 (21-7-66) Method for producing steel by the basic oxygen process and apparatus for carrying out the same.	
106285 (21-7-66) Process for the preparation of isocyanates and isothiocyanates.	
106286 (21-7-66) Process for the preparation of isocyanates and isothiocyanates.	
120 (16-3-66) Isolation of trisazo dyestuffs.	

**Renewal Fees Paid**

64587	64748	64749	65350	65529	68024	68025	68033
68073	68196	68333	68349	68433	68714	68720	72142
72193	72273	72513	72599	72600	72622	72624	72655
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127577	127772	128380	128388	128432	128683	129268
129276	129580	129615	129738	130058	130501	131107

**Cessation of Patents**

97956	106875	106881	106884	106885	106886	106888
106891	106894	106897	106903	106904	106905	106911
106917	106918	106921	106925	106927	106928	106932
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106952	106953	106954	106957	106960	106961	106962
106966	106974	106978	106981	106986	106987	106992
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107142	107145	107151	107152	107153	107156	107157
107168	107169	107172	107178	107181	107182	107186
107207	107208	107209	107217	107218	107226	107228
107236	107243	107245	107246	107248	107249	107251
107253	107254	107260	107261	107263	107273	107276
107277	107280	107281	107284	107286	107288	107295
107297	107301	107307	107316	107317	107331	107333
107334	107336	107337	107338	107347	107349	107353
107356	107357	107364	107366	107368	107369	107371
107372	107375	107388	107389	107394	107395	107412
107413	107416	107417	107418	107420	107424	107426
107427	107432	107435	107443	107444	107445	107456
107457	107458	107459	107460	107461	107462	107465
107487	107488	107491	107495	107500	107505	107507
107514	107522	107526	107528	107529	107530	107542
107549	107550	107554	107555	107559	107563	107564
107569	107592	107595	107596	107599	107610	107612
107613	107616	107621	107623	107628	107633	107635
107636	107640	107645	107646	107648	107651	107653
107654	107655	107656	107657	107663	107664	107671
107675	107676	107678	107682	107687	107689	107690
107696	107699	107702	107705	107711	107712	107713
107714	107721	107722	107727	107728	107731	107732
107737	107739	107743	107744	107747	107748	107749
107750	107752	107754	107755	107758	107761	107764
107766	107767	107769	107772	107778	107781	107785
107791	107793	107798	107800	107802	107803	107806
107807	107815	107816	107820	107821	107822	107823
112482	115925	119595	122048			

**Restoration Proceedings**

(1)

Notice is hereby given that an application for restoration of Patent No. 105984 made by Taurus Equipment Private Ltd., on the 20th January, 1973 and notified in the Gazette of India, Part III, Section 2, dated the 10th March, 1973 has been allowed and the said patent restored

(2)

Notice is hereby given that an application for restoration of Patent No. 111026 dated the 9th June, 1967 made by Ibcon Private Limited on the 29th January, 1973 and notified in the Gazette of India, Part III, Section 2, dated the 24th March, 1973 has been allowed and the said patent restored

## Registration of Designs

The following designs have been registered. They are not open to inspection for a period of two years from the date of registration except as provided for in Section 50 of the Designs Act, 1911.

The date shown in each entry is the date of registration of the design included in the entry.

Class 9. No. 140271. M/s. Sovrin Knit Works, 20/4, Mathura Road, Faridabad (Haryana) a registered partnership firm of Indian Nationality, "Textile goods", September 23, 1972.

Class 13. Nos. 140527 to 140533. Shree Ram Mills Ltd., Fergusson Road, Lower Parel, Bombay-13, Maharashtra, Nationality—Indian Company, "Textile goods", January 2, 1973.

Class 13. Nos. 140578 to 140580. Eknaz Trading Corporation, 289/91, Nagdevi Street, Bombay 3, Maharashtra State (a registered Indian Partnership concern), "Textile fabric", January 18, 1973.

Class 13 Nos. 140614 to 140616. Shree Ram Mills Ltd., Fergusson Road, Lower Parel, Bombay-13, (Maharashtra), Nationality—Indian Company, "Textile goods". January 24, 1973.

## Copyright Extended for a Second Period of Five Years

Design Nos. 131475, 131476, 132700, 133675, 136317, 133803, 133804, 134752, 134792, 135289.—Class—1.

Design Nos. 132389, 132390, 132391, 133059, 132946, 133423, 133676, 134817, 134864.—Class—3.

Design Nos. 133170 & 134314.—Class—4.

Design No. 138363.—Class—12.

## Copyright Extended for a Third Period of Five Years

Design Nos. 117017, 117056, 117284, 117321, 125002 and 134792.—Class—1.

Design No. 116521.—Class—3.

Design No. 138363.—Class—12.

NAME INDEX FOR APPLICANTS FOR PATENTS FOR THE MONTH OF MAY, 1973 (Nos. 1012/Cal/73 to 1284/Cal/73, 156/Bom/73 to 189/Bom/73 and 65/Mas/73 to 74/Mas/73

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